emachines®

Desktop PC User Guide

Contents

1 **Getting Help** 1
eMachines Web site 2
Help and Support 3
  Searching for a topic 4
Using Your Computer guide 4
Online help 5
eMachines contact information 6

2 **Checking Out Your eMachines Computer** 7
Desktop PC Front 8
Desktop PC Back 10
Identifying your model 13
  eMachines model and serial number 13
  Microsoft Certificate of Authenticity 14

3 **Getting Started** 15
Working safely 16
  Reducing eye strain 16
  Setting up your computer desk and chair 17
  Setting up your computer and computer accessories 17
  Sitting at your computer 17
  Avoiding discomfort and injury from repetitive strain 18
  Protecting from power source problems 18
  Checking the voltage selection 18
Starting your computer 19
  Waking up your computer 19
Turning off your computer 20
Restarting (rebooting) your computer 20
Adjusting the volume 21
Using the keyboard 22
  Enhanced keyboard 22
  Standard keyboard 22
  Keyboard features 23
Using the mouse 24
Connecting the modem 26
Connecting to a wired Ethernet network 27
Installing a printer, scanner, or other peripheral device 28

4 **Using Drives and Ports** 29
Using the memory card reader 30
  Memory card types 30

Inserting a memory card 31
Using the CD or DVD drive 32
Identifying drive types 32
Inserting a CD or DVD 33
Playing a CD 33
Playing a DVD 34
Creating CDs or DVDs 34

5 Networking Your Computer 35
Introduction to Networking 36
Using a router 36
Creating an Ethernet network 38
Making sure your broadband connection works 38
Naming the computers and the workgroup 38
Configuring the TCP/IP protocol 39
Setting up an Ethernet network 41
Configuring your router 43
Testing your network 43
Using your computer on your network 43
Troubleshooting Your Ethernet network 44

6 Maintaining Your Computer 45
Caring for your computer 46
Updating Windows 46
Protecting your computer from viruses 47
Cleaning your computer 47
Cleaning the exterior 47
Cleaning the keyboard 48
Cleaning the computer display 48
Cleaning the mouse 48
Cleaning CDs or DVDs 49
Restoring your system 49
Microsoft System Restore 49
Reinstalling programs and drivers 50
Restoring your computer to the original configuration 50
Preventing static electricity discharge 51
Opening the case 52
Removing the side panel 52
Removing the front bezel 53
Closing the case 54
Replacing the side panel 54
Replacing the front bezel 55
Installing memory 56
Replacing the system battery 58

7 **Troubleshooting** 61
Safety guidelines 62
First steps 62
Troubleshooting 63
  Add-in cards 63
  Audio 63
  Battery 63
  CD or DVD drives 63
  Computer 64
  DVD drives 65
  File management 65
  Hard drive 65
  Internet 66
  Keyboard 67
  Memory 68
  Memory card reader 68
  Modem (dial-up) 68
  Monitor 71
  Mouse 73
  Networks 73
  Passwords 73
  Power 73
  Printer 74
  Sound 75
Telephone support 76
  Before calling eMachines Customer Care 76
  Telephone numbers 77
  Self-help 77

A **Safety, Regulatory, and Legal Information** 79

Index 87

Chapter 1

Getting Help

- Using the eMachines Web site
- Using Help and Support
- *Using Your Computer* guide
- Using online help
- Contacting eMachines

Thank you for purchasing our computer!

You have made an excellent decision choosing eMachines. We are sure that you will be pleased with the outstanding quality, reliability, and performance of your new computer. Each and every eMachines computer uses the latest technology and passes through the most stringent quality control tests to ensure that you are provided with the best product possible.

Please read this manual carefully to familiarize yourself with our range of services and support. We have highlighted some basic care and safety information to help you keep your computer in good operating condition.

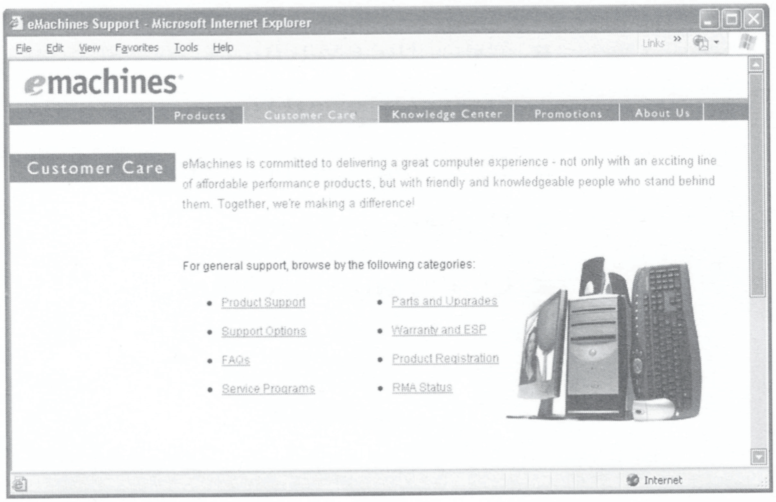
eMachines stands behind our value proposition to our customers — to provide best-of-class service and support in addition to high-quality, brand-name components at affordable prices. If you ever have a problem, our knowledgeable, dedicated customer service department will provide you with fast, considerate service.

We sincerely hope that you will receive the utmost satisfaction and enjoyment from your new eMachines computer for years to come.

Thanks again, from all of us at eMachines.

eMachines Web site

eMachines's online support is available 24 hours per day, 7 days per week and provides the most current drivers, product specifications, tutorials, and personalized information about your computer. Visit the eMachines Web support site at www.emachines.com/support.



eMachines is committed to delivering a great computer experience - not only with an exciting line of affordable performance products, but with friendly and knowledgeable people who stand behind them. Together, we're making a difference!

For general support, browse by the following categories:

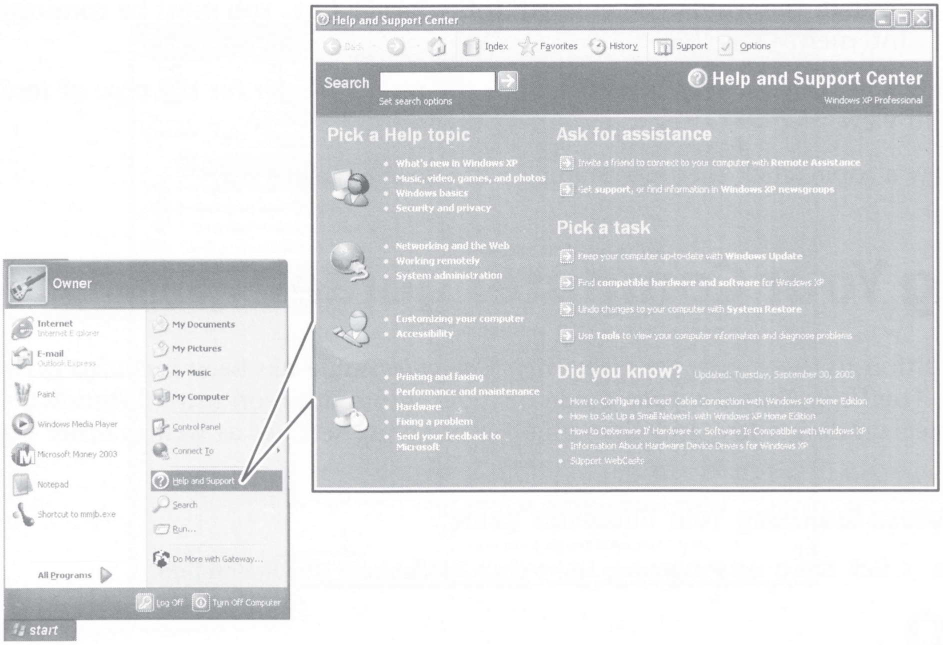
- Product Support
- Support Options
- FAQs
- Service Programs
- Parts and Upgrades
- Warranty and ESP
- Product Registration
- RMA Status

Help and Support

Your computer includes *Help and Support,* an easily accessible collection of help information, troubleshooters, and automated support. Use Help and Support to answer questions about Windows and to help you quickly discover and use the many features of your eMachines computer.

To start Help and Support:

- Click **Start**, then click **Help and Support**. Help and Support opens.


Help and Support Center
Back
Index
Favorites
History
Support
Options
Search
Set search options
Help and Support Center
Windows XP Professional
Pick a Help topic
What's new in Windows XP
Music, video, games, and photos
Windows basics
Security and privacy
Networking and the Web
Working remotely
System administration
Customizing your computer
Accessibility
Printing and faxing
Performance and maintenance
Hardware
Fixing a problem
Send your feedback to Microsoft
Ask for assistance
Invite a friend to connect to your computer with Remote Assistance
Get support, or find information in Windows XP newsgroups
Pick a task
Keep your computer up-to-date with Windows Update
Find compatible hardware and software for Windows XP
Undo changes to your computer with System Restore
Use Tools to view your computer information and diagnose problems
Did you know?
Updated: Tuesday, September 30, 2003
How to Configure a Direct Cable Connection with Windows XP Home Edition
How to Set Up a Small Network with Windows XP Home Edition
How to Determine If Hardware or Software Is Compatible with Windows XP
Information About Hardware Device Drivers for Windows XP
Support WebCasts
Owner
Internet
Internet Explorer
E-mail
Outlook Express
Paint
Windows Media Player
Microsoft Money 2003
Notepad
Shortcut to mmjb.exe
All Programs
My Documents
My Pictures
My Music
My Computer
Control Panel
Connect To
Help and Support
Search
Run...
Do More with Gateway...
Log Off
Turn Off Computer
start

You can find help information by clicking a link, performing a search, or browsing the index.

Searching for a topic

To search for a topic in Help and Support, type a word or phrase (keyword) in the **Search** box located at the top of any Help and Support screen, then click the arrow → button.

For each search, you receive the following search result types:

- Suggested Topics - These topics are located in Help and Support and are relevant to your search topic.
- Full-text Search Matches - These topics are located in Help and Support and contain the words you entered in the **Search** box.
- Microsoft Knowledge Base - These topics are located on the Microsoft Web site and contain the words you entered in the **Search** box. You must be connected to the Internet to search for and access these topics.

To view a list of your search results, click the results header for the type of results you want to view.

To view a topic, click the topic name in the **Search Results** list.

Using Your Computer guide

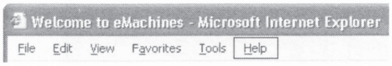
In addition to this guide, the *Using Your Computer* guide has been included on your hard drive. The *Using Your Computer* guide includes information on using Windows, using the Internet, sending a fax, and changing power-saving settings as well as other topics.

To access the Using Your Computer guide:

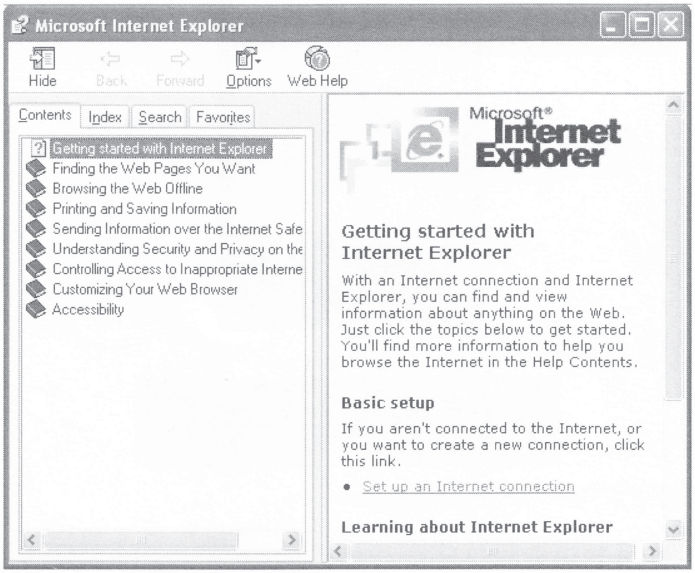
- Click **Start**, **All Programs**, then click **eMachines Documentation**.

Online help

Many programs provide information online so you can research a topic or learn how to perform a task while you are using the program. You can access most online help information by selecting a topic from a **Help** menu or by clicking a **Help** button.


Welcome to eMachines - Microsoft Internet Explorer
File
Edit
View
Favorites
Tools
Help

You can search for information by viewing the help contents, checking the index, searching for a topic or keyword, or browsing through the online help.


Microsoft Internet Explorer
Hide
Back
Forward
Options
Web Help
Contents
Index
Search
Favorites
Getting started with Internet Explorer
Finding the Web Pages You Want
Browsing the Web Offline
Printing and Saving Information
Sending Information over the Internet Safe
Understanding Security and Privacy on the
Controlling Access to Inappropriate Interne
Customizing Your Web Browser
Accessibility
Microsoft® Internet Explorer

Getting started with Internet Explorer

With an Internet connection and Internet Explorer, you can find and view information about anything on the Web. Just click the topics below to get started. You'll find more information to help you browse the Internet in the Help Contents.

Basic setup

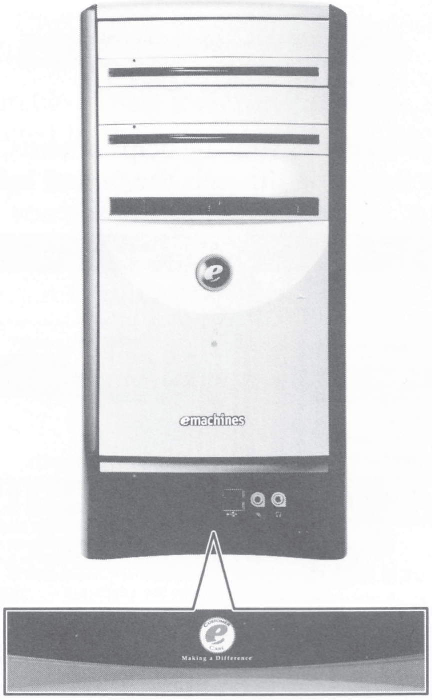
If you aren't connected to the Internet, or you want to create a new connection, click this link.

- Set up an Internet connection

Learning about Internet Explorer

eMachines contact information

To help you locate eMachines contact information, you can find the technical support contact information on the label located on the front of your computer case.


emachines
Making a Difference

Chapter 2

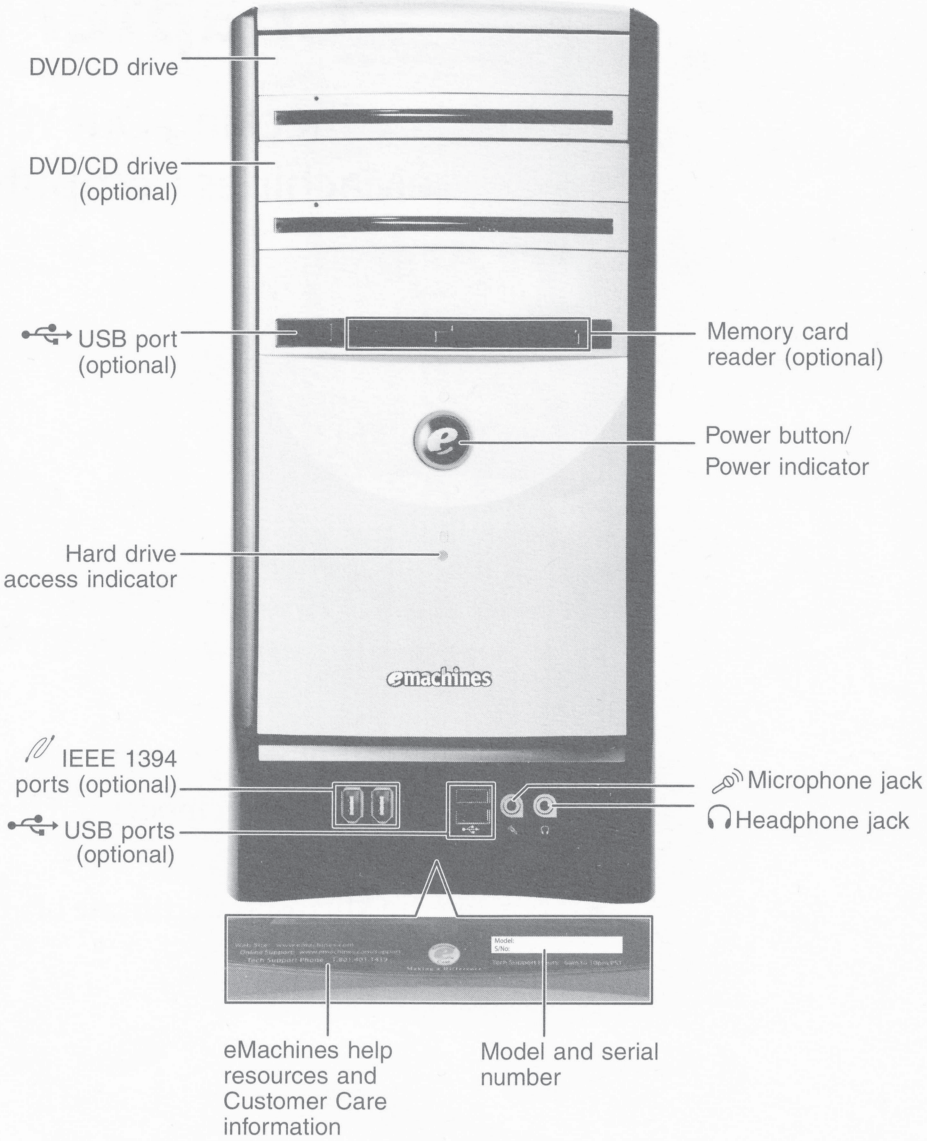
Checking Out Your eMachines Computer

- Identifying features
- Locating your computer model and serial number
- Locating the Microsoft Certificate of Authenticity

Desktop PC Front

Your computer includes the following components.

Important Your computer hardware options and port locations may vary from the illustration below.

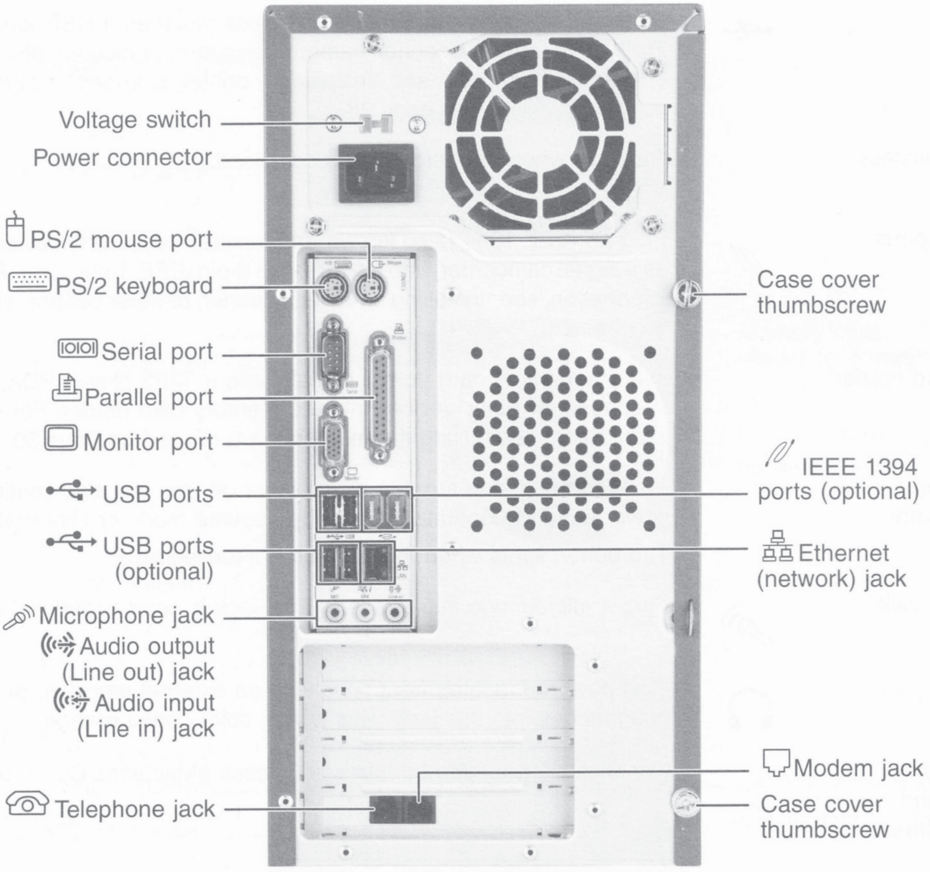

DVD/CD drive
DVD/CD drive (optional)
USB port (optional)
Memory card reader (optional)
Power button/ Power indicator
Hard drive access indicator
emachines
IEEE 1394 ports (optional)
USB ports (optional)
Microphone jack
Headphone jack
Model:
S/No:
eMachines help resources and Customer Care information
Model and serial number

Component	Icon	Description
DVD/CD drive		Use this drive to listen to audio CDs, install games and programs, watch DVDs, and store large files onto recordable discs (depending on drive type). This drive may be a CD, recordable CD, DVD, or recordable DVD drive. To identify your drive type and for more information about your drive, see "Identifying drive types" on page 32.
USB ports (optional)		Plug a USB (Universal Serial Bus) device (such as a USB Iomega™ Zip™ drive, printer, scanner, camera, keyboard, or mouse) into this port. For more information, see "Installing a printer, scanner, or other peripheral device" on page 28.
Hard drive access indicator		Turns on when the hard drive is accessed.
IEEE 1394 ports (optional)		Plug an IEEE 1394 (also known as Firewire® or i.Link®) device (such as a digital camcorder) into one of these 6-pin IEEE 1394 ports. For more information, see "Installing a printer, scanner, or other peripheral device" on page 28.
Memory card reader (optional)		Insert a memory card from a digital camera, MP3 player, PDA, cellular telephone, or other devices into the memory card reader. For more information, see "Using the memory card reader" on page 30.
Power button / Power indicator		Press this button to turn the power on or off. You can also configure the power button to operate in Standby/Resume mode or Hibernate mode. The button lights when the computer is turned on.
Microphone jack	🎤	Plug a microphone into this jack. This jack is color-coded red or pink.
Headphone jack	🎧	Plug powered, analog front speakers, an external amplifier, or headphones into this jack. This jack is color-coded orange.
eMachines help resources and Customer Care information		Contains information about how to access eMachines Customer Care.
eMachines model and serial number		Contains your model and serial number.

Desktop PC Back

Your computer includes the following components.

Important Your computer hardware options and port locations may vary from the illustration below.


Voltage switch
Power connector
PS/2 mouse port
PS/2 keyboard
Serial port
Parallel port
Monitor port
USB ports
USB ports (optional)
Microphone jack
Audio output (Line out) jack
Audio input (Line in) jack
Telephone jack
Case cover thumbscrew
IEEE 1394 ports (optional)
Ethernet (network) jack
Modem jack
Case cover thumbscrew

Component	Icon	Description
Voltage switch		Before turning on your computer, make sure that this switch is in the correct position for the correct power available. The switch is preset at the factory with the correct voltage for your area. In the United States, the utility power is supplied at a nominal 115 volts at 60 Hz. The power supply should always be set to this when your computer is operating in the United States. In other areas of the world, such as Europe, the utility power is supplied at 230 volts at 50 Hz. If your computer is operating in an environment such as this, the voltage switch should be moved to 230. For more information, see "Checking the voltage selection" on page 18.
Power connector		Plug the power cord into this connector.
PS/2 mouse port	🖱	Plug a Personal System/2® (PS/2) mouse into this port.
PS/2 keyboard port	⌨	Plug a PS/2 keyboard into this port.
Serial port	IOIOI	Plug a serial device (such as a digital camera) into this port. For more information, see "Installing a printer, scanner, or other peripheral device" on page 28.
Parallel port	🖶	Plug a parallel device (such as a printer) into this port. For more information, see "Installing a printer, scanner, or other peripheral device" on page 28.
Monitor port	🖵	Plug a monitor into this port.
USB ports (optional)		Plug USB (Universal Serial Bus) devices (such as a USB Iomega™ Zip™ drive, printer, scanner, camera, keyboard, or mouse) into these ports. For more information, see "Installing a printer, scanner, or other peripheral device" on page 28.
Microphone jack	🎤	Plug a microphone into this jack. This jack is color-coded red or pink.
Audio output (Line out) jack		Plug powered, analog front speakers, an external amplifier, or headphones into this jack. This jack is color-coded lime green.
Audio input (Line in) jack		Plug an external audio input source (such as a stereo) into this jack so you can record sound on your computer. This jack is color-coded blue.
Telephone jack (optional)	☎	If your modem has a telephone jack, plug the cable for a telephone into this jack.

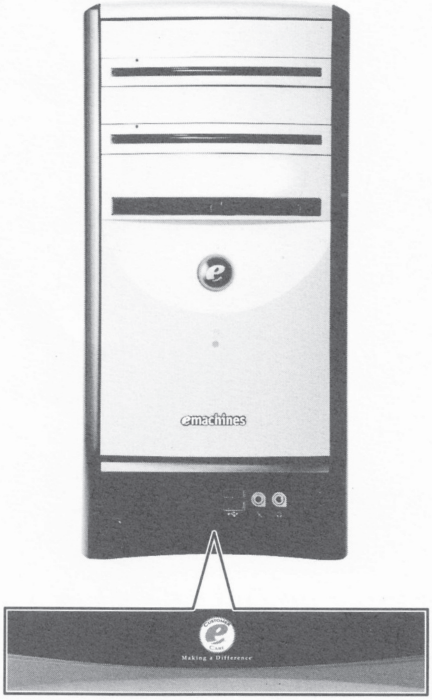
Component	Icon	Description
Case cover thumbscrews		Remove these screws before opening the case.
IEEE 1394 ports (optional)		Plug an IEEE 1394 (also known as Firewire® or i.Link®) device (such as a digital camcorder) into one of these 6-pin IEEE 1394 ports. For more information, see “Installing a printer, scanner, or other peripheral device” on page 28.
Ethernet (network) jack	🖧	Plug a 10/100 Ethernet network cable or a device (such as a DSL or cable modem for a broadband Internet connection) into this jack.
Modem jack	☎	Plug a modem cable into this jack.

Identifying your model

Important The labels shown in this section are for informational purposes only. Label information varies by model, features ordered, and location.

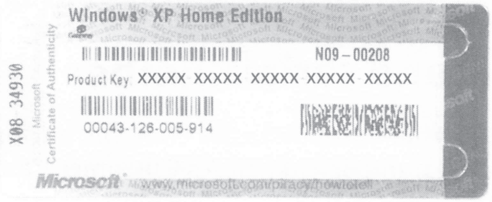
eMachines model and serial number

The label on the front of your computer case contains information that identifies your computer model and serial number. eMachines Customer Care will need this information if you call for assistance.



Microsoft Certificate of Authenticity

The Microsoft Certificate of Authenticity label found on the back or side of your computer includes the product key code for your operating system.



X08 34930

Microsoft
Certificate of Authenticity

Windows® XP Home Edition

N09 – 00208

Product Key XXXXX-XXXXX-XXXXX-XXXXX-XXXXX

00043-126-005-914

Microsoft® www.microsoft.com/piracy/howtotell

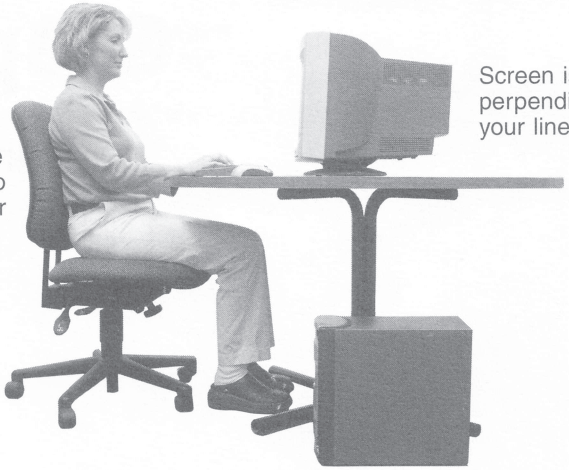
Chapter 3

Getting Started

- Using your computer safely
- Protecting your computer from power source problems
- Turning your computer on and off
- Adjusting the volume
- Using the keyboard and the mouse
- Installing peripheral devices

Working safely

Before using your computer, read the following recommendations for setting up a safe and comfortable work area and avoiding discomfort and strain.


Top of screen is not higher than eye level
Screen is perpendicular to your line of sight
Hands and arms are parallel to the floor
Feet are flat on the floor

Reducing eye strain

Sunlight or bright indoor lighting should not reflect on the monitor screen or shine directly into your eyes.

- Position the computer desk and monitor so you can avoid glare on your screen and light shining directly into your eyes. Reduce glare by installing shades or curtains on windows, and by installing a glare screen filter on your monitor.
- Use soft, indirect lighting in your work area. Do not use your computer in a dark room.
- Avoid focusing your eyes on your computer screen for long periods of time. Look away from your computer occasionally, and try to focus on distant objects.

Setting up your computer desk and chair

When you are setting up your computer desk and chair, make sure that the desk is the appropriate height and the chair helps you maintain good posture.

- Select a flat surface for your computer desk.
- Adjust the height of the computer desk so your hands and arms are positioned parallel to the floor when you use the keyboard and mouse. If the desk is not adjustable or is too tall, consider using a keyboard drawer.
- Use an adjustable chair that is comfortable, distributes your weight evenly, and keeps your body relaxed.
- Position your chair so the keyboard is at or slightly below the level of your elbow. This position lets your shoulders relax while you type.
- Adjust the chair height, adjust the forward tilt of the seat, or use a footrest to distribute your weight evenly on the chair and relieve pressure on the back of your thighs.
- Adjust the back of the chair so it supports the lower curve of your spine. You can use a pillow or cushion to provide extra back support.

Setting up your computer and computer accessories

- Set up the monitor so the top is no higher than eye level, the monitor controls are within reach, and the screen is tilted to be perpendicular to your line of sight.
- Place your keyboard and mouse at a comfortable distance. You should be able to reach them without stretching.
- Set paper holders at the same height and distance as the monitor.

Sitting at your computer

- Avoid bending, arching, or angling your wrists. Make sure that they are in a relaxed position when you type.
- Do not slouch forward or lean far back. Sit with your back straight so your knees, hips, and elbows form right angles when you work.
- Take breaks to stand and stretch your legs.
- Avoid twisting your torso or neck.

Avoiding discomfort and injury from repetitive strain

- Vary your activities to avoid excessive repetition.
- Take breaks to change your position, stretch your muscles, and relieve your eyes.
- Find ways to break up the work day, and schedule a variety of tasks.

Protecting from power source problems

During a power surge, the voltage level of electricity coming into your computer can increase to far above normal levels and cause data loss or system damage. Protect your computer and peripheral devices by connecting them to a *surge protector,* which absorbs voltage surges and prevents them from reaching your computer.

Warning

High voltages can enter your computer through both the power cord and the modem connection. Protect your computer by using a surge protector. If you have a telephone modem, use a surge protector that has a modem jack. If you have a cable modem, use a surge protector that has an antenna/cable TV jack. During an electrical storm, unplug both the surge protector and the modem.

An *uninterruptible power supply* (UPS) supplies battery power to your computer during a power failure. Although you cannot run your computer for an extended period of time with a UPS, a UPS lets you run your computer long enough to save your work and shut down your computer normally.

Checking the voltage selection

A power supply is integrated into your computer to provide power to the system board, add-in cards, and peripheral devices. The voltage selection for your location is typically set at the factory. Use the power selection switch on the back of your computer to set the power supply to 115V or 230V. To verify that your system has the correct setting for your environment, check the voltage selection switch.

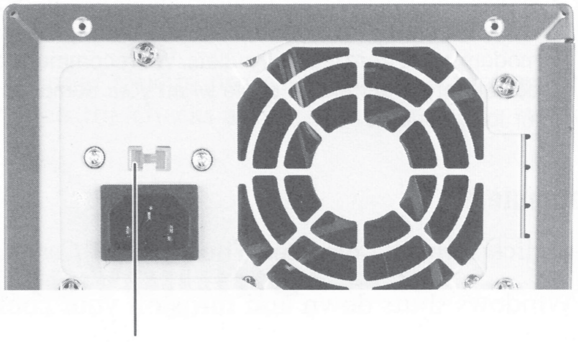
Caution

If you set the voltage selection switch incorrectly, your system will be damaged. Make sure this switch is set correctly for your location before turning on your computer.

In the United States, the utility power is supplied at a nominal 115 volts at 60 Hz. The power supply should always be set to this when your computer is operating in the United States. In other areas of the world, such as Europe, the utility power is supplied at 230 volts at 50 Hz. If your computer is operating in an environment such as this, the voltage switch should be moved to 230.

To set the voltage selection switch:

- Use a tool such as an opened paper clip to slide the voltage selection switch to the correct voltage position.



Starting your computer

To start your computer:

1. Connect the cables to your computer. See the setup poster.
2. Turn on your computer.
3. If you are starting your computer for the first time, follow the on-screen instructions to set up your computer.
4. Turn on any peripheral devices, such as printers or scanners, and see the documentation that came with the device for setup instructions.

Waking up your computer

When you have not used your computer for several minutes or have not turned off your computer, it may enter a power-saving mode called *Standby*. While in Standby, the power indicator flashes.

If your computer is in Standby mode, move the mouse or press the power button to "wake" it up.

Turning off your computer

Warning When you turn off your computer, certain components in the power supply and system board remain energized. In order to remove all electrical power from your computer, unplug the power cord and modem cable from the wall outlets. We recommend disconnecting the power cord and modem cable when your computer will not be used for long periods.

To turn off your computer:

1. Click **Start**, then click **Turn Off Computer**. The *Turn Off Computer* dialog box opens.
2. Click **Turn Off**. Windows shuts down and turns off your computer.

Important If for some reason you cannot use the Turn Off Computer option in Windows to turn off your computer, press and hold the power button for about five seconds, then release it.

Restarting (rebooting) your computer

If your computer does not respond to keyboard or mouse input, you may have to close programs that are not responding. If closing unresponsive programs does not restore your computer to normal operation, you may have to restart (reboot) your computer.

To close unresponsive programs and restart your computer:

1. Press CTRL+ALT+DEL. The *Task Manager* window opens.
2. Click the **Applications** tab, then click the program that is not responding.
3. Click **End Task**.

4 Click **X** in the top-right corner of the *Windows Task Manager* dialog box.

5 If your computer does not respond, turn it off, wait ten seconds, then turn it on again.

Important If your computer does not turn off, press and hold the power button for about five seconds, then release it.

As a part of the regular startup process, a program to check the disk status runs automatically. When the checks are finished, Windows starts.

Adjusting the volume

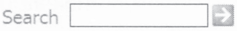
You can use the volume controls to adjust the overall volume and the volume of specific sound devices in your computer.

To adjust the overall volume level using hardware controls:

- If you are using external speakers, turn the knob on the front of the speakers.

  -OR-

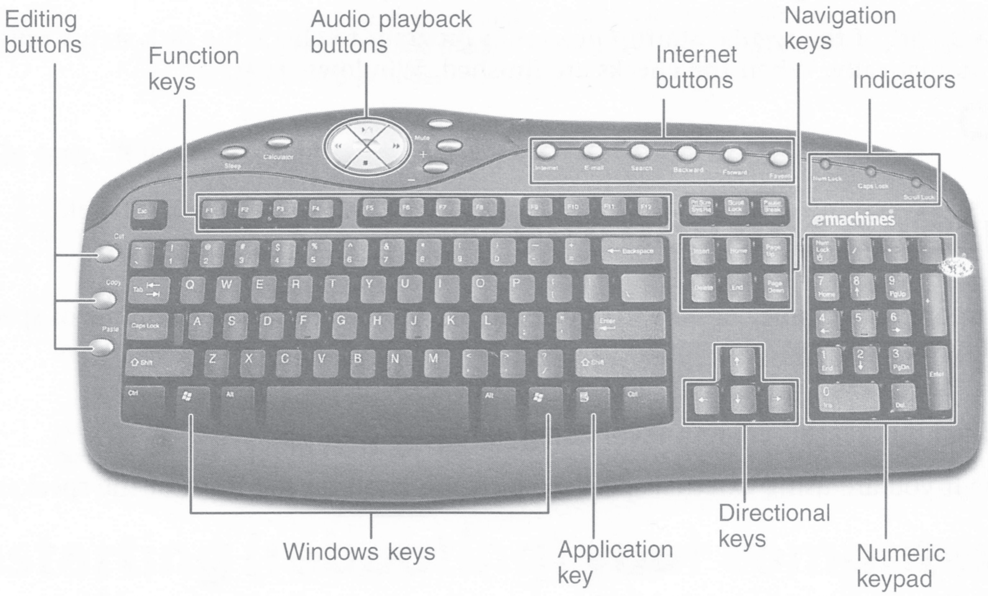
  If you have an enhanced keyboard, use the mute and volume control buttons on the keyboard. For more information, for more information see "Enhanced keyboard" on page 22.

Help and Support For more information about installing peripheral devices, click **Start**, then click **Help and Support**. Type the keyword **adjusting volume** in the **Search** box 

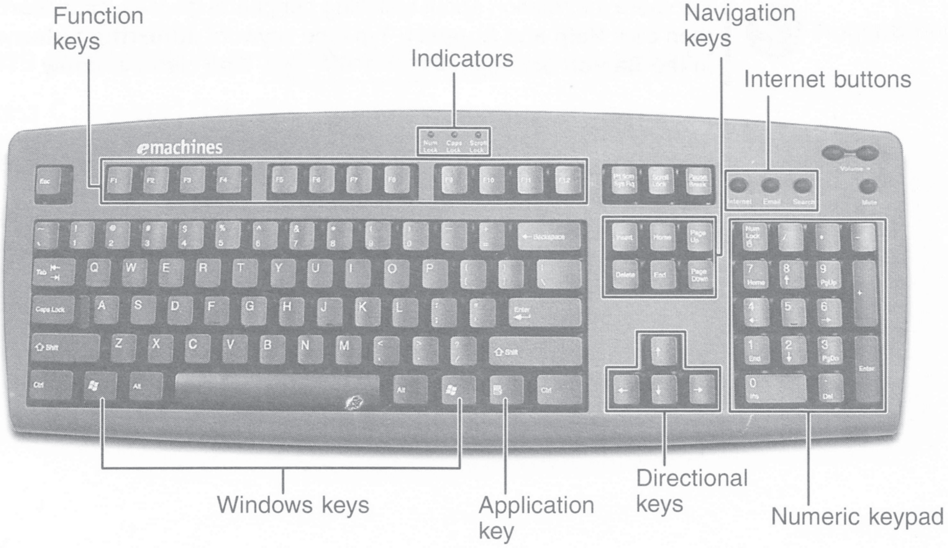
, then click the arrow.

Using the keyboard

Enhanced keyboard


Editing buttons
Function keys
Audio playback buttons
Internet buttons
Navigation keys
Indicators
Windows keys
Application key
Directional keys
Numeric keypad

Standard keyboard


Function keys
Indicators
Navigation keys
Internet buttons
Windows keys
Application key
Directional keys
Numeric keypad

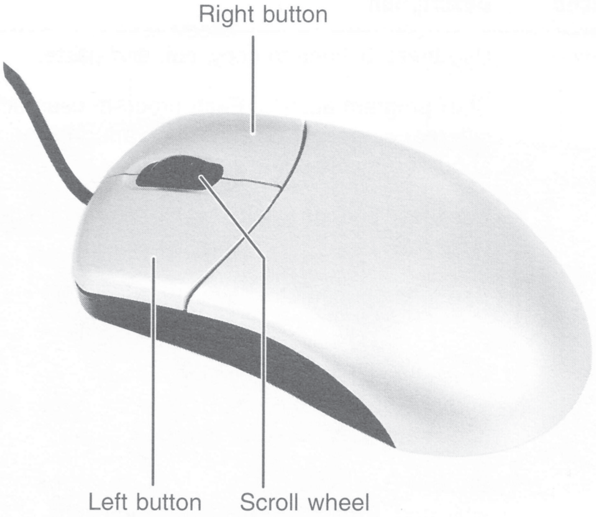
Keyboard features

The keyboard has several different types of keys and buttons. Your keyboard also has status indicators that show which keyboard feature is active.

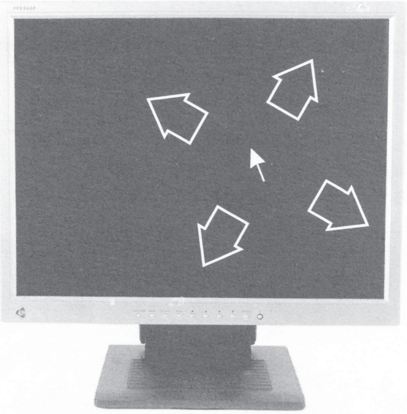
Feature	Icon	Description
Editing buttons		Use these buttons to copy, cut, and paste.
Function keys		Start program actions. Each program uses different function keys for different purposes. See the program documentation to find out more about the function key actions.
Internet buttons		Use these buttons to launch your Internet home page, search, or e-mail programs.
Audio playback buttons		Use these buttons to play your audio files and to adjust the volume.
Navigation keys		Press these keys to move the cursor to the beginning of a line, to the end of a line, up the page, down the page, to the beginning of a document, or to the end of a document.
Indicators		Show if your Num Lock, Caps Lock, or Scroll Lock keys are activated. Press the corresponding key to activate the function.
Windows keys	⊞	Press one of these keys to open the Windows **Start** menu. These keys can also be used in combination with other keys to open utilities like F (Search utility), R (Run utility), and E (Explorer utility).
Application key	▤	Access shortcut menus and help assistants in Windows.
Directional keys		Move the cursor up, down, right, or left.
Numeric keypad		Use these keys to type numbers when the numeric keypad (Num Lock) is turned on.

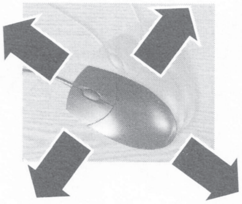
Using the mouse

The *mouse* is a device that controls the pointer movement on the computer display. This illustration shows the standard mouse.



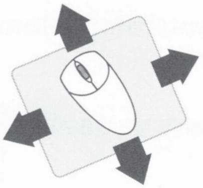
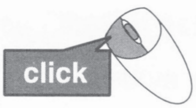
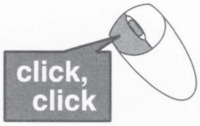
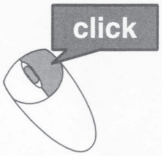
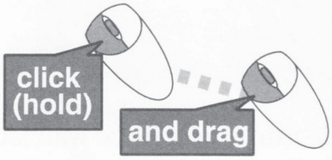
As you move the mouse, the *pointer* (arrow) on the display moves in the same direction.





You can use the *left* and *right buttons* on the mouse to select objects on the display.

You can use the *scroll wheel* on the mouse to move through a document. This feature is not available in all programs.

To...	**Do this...**	
Move the pointer on the computer display		Move the mouse around on the mouse pad. If you run out of space on your mouse pad and need to move the pointer farther, pick up the mouse, set it down in the middle of the mouse pad, then continue moving the mouse.
Select an object on the computer display		Position the pointer over the object. Quickly press and release the left mouse button once. This action is called *clicking*.
Start a program or open a file or folder		Position the pointer over the object. Quickly press and release the left mouse button twice. This action is called *double-clicking*.
Access a shortcut menu or find more information about an object on the computer display.		Position the pointer over the object. Quickly press and release the right mouse button once. This action is called *right-clicking*.
Move an object on the computer display.		Position the pointer over the object. Press the left mouse button and hold it down. Move (drag) the object to the appropriate part of the computer display. Release the button to drop the object where you want it.

For instructions on how to clean the mouse, see "Cleaning the mouse" on page 48.

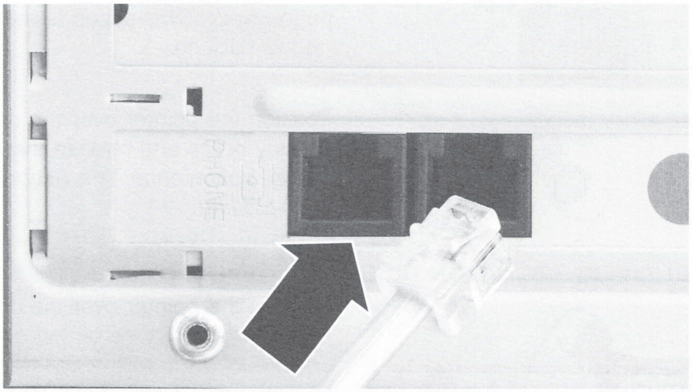
Connecting the modem

Your computer has a built-in 56K modem that you can use to connect to a standard telephone line.

Warning ! To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

▶ To connect the modem:

1 Insert one end of the modem cable into the modem jack ☐ on the back of your computer.



2 Insert the other end of the modem cable into a telephone wall jack. The modem will not work with digital or PBX telephone lines.

3 Start your computer, then start your communications program.

■

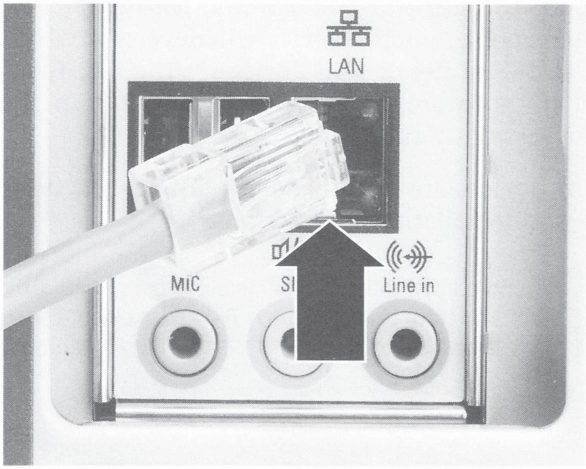
Connecting to a wired Ethernet network

Your computer has a network jack that you can use to connect to a 10/100 wired Ethernet network.

Important Your computer is equipped with a built-in Ethernet port.

To connect to a wired Ethernet network:

1 Insert one end of the network cable into the network jack 🖧 on the back of your computer.



2 Insert the other end of the network cable into a network jack.

Tips & Tricks You can use your computer's Ethernet jack for more than just networking. Many broadband Internet connections, such as cable modems and DSL modems, connect to your computer's Ethernet jack.

Installing a printer, scanner, or other peripheral device

Important Before you install a printer, scanner, or other peripheral device, see the device documentation and installation instructions.

Your computer has one or more of the following ports: IEEE 1394 (also known as Firewire® or i.Link®), Universal Serial Bus (USB), serial, and parallel. You use these ports to connect peripheral devices such as printers, scanners, and digital cameras to your computer. For more information about port locations, "Checking Out Your eMachines Computer" on page 7.

IEEE 1394 and USB ports support *plug-and-play* and *hot-swapping,* which means that your computer will usually recognize such a device whenever you plug it into the appropriate port. When you use an IEEE 1394 or USB device for the first time, your computer will prompt you to install any software the device needs. After doing this, you can disconnect and reconnect the device at any time.

Parallel and serial port devices are not plug-and-play. See the device documentation for detailed information and installation instructions.

Help and Support For more information about installing peripheral devices, click **Start**, then click **Help and Support**. Type the keyword **installing devices** in the **Search** box Search ☐ ➔, then click the arrow.

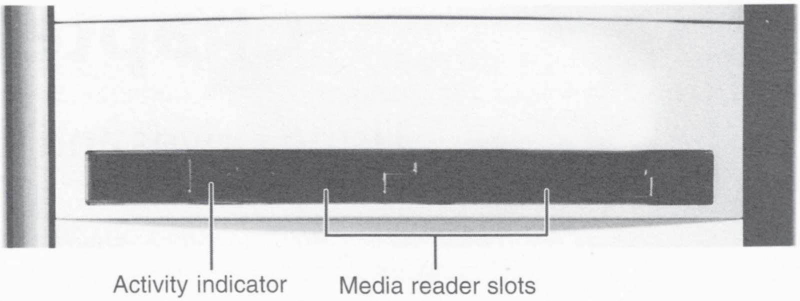
Chapter 4

Using Drives and Ports

- Using the memory card reader
- Using CD or DVD drives

Using the memory card reader

You can use the optional memory card reader to transfer pictures from a digital camera to your computer. You can also use the memory card reader to transfer data between your computer and a device that uses memory cards, such as a PDA, MP3 player, or cellular phone.



Memory card types

The memory card reader supports the following card types:

- Secure Digital™
- MultiMediaCard™
- SM (SmartMedia™)
- Memory Stick®
- Memory Stick PRO™
- CompactFlash®
- IBM Microdrive™

Each slot is assigned a different drive letter (for example, the E: and F: drives) so data can be transferred from one media type to another.

Inserting a memory card

Caution To avoid memory card damage or errors while using a media card, insert only one media card in a slot at a time.

To use a memory card:

1. Insert the memory card into the memory card slot.
2. To access a file on the memory card, click **Start**, then click **My Computer**. Double-click the drive letter (for example, the E: drive), then double-click the file name.

To remove a memory card:

- Wait for the media reader access indicator to stop blinking, then pull the media out of the slot.

Caution Do not remove the memory card or turn off the computer while the card reader access indicator is blinking. You could lose data. Also, remove the card from the reader before you turn off the computer.

Important Do not use the remove hardware icon in the taskbar to remove the memory card. If you use the remove hardware icon, your computer will not recognize your memory card reader until you restart your computer.

Using the CD or DVD drive

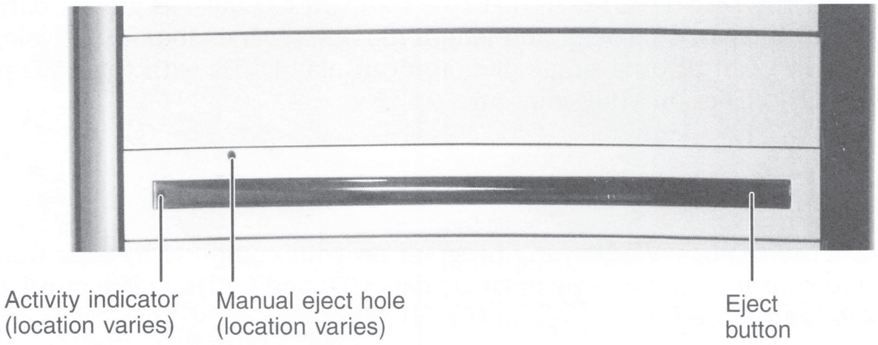
You can use your computer to enjoy a wide variety of multimedia features.

Identifying drive types

Your computer may contain one of the following drive types. Look on the front of the drive for one or more of the following logos:

If your drive has this logo...	This is your drive type...	Use your drive for...
COMPACT disc	**CD drive**	Installing programs, playing audio CDs, and accessing data.
COMPACT disc ReWritable High Speed	**CD-RW drive**	Installing programs, playing audio CDs, accessing data, and creating CDs.
COMPACT disc ReWritable High Speed DVD ROM	**DVD/CD-RW drive**	Installing programs, playing audio CDs, accessing data, creating CDs, and playing DVDs.
DVD ROM	**DVD drive**	Installing programs, playing audio CDs, playing DVDs, and accessing data.
RW DVD+ReWritable	**DVD+RW**	Installing programs, playing audio CDs, playing DVDs, accessing data, and recording video and data to DVD+R or DVD+RW discs.
DVD RW/R	**DVD R/RW drive**	Installing programs, playing audio CDs, playing DVDs, accessing data, and recording video and data to DVD+R, DVD+RW, DVD-R, and DVD-RW discs.
RW DVD+R DL	**Double layer DVD+RW**	Installing programs, playing audio CDs, playing DVDs, accessing data, and recording video and data to double layer DVD+R discs. **Note:** To use the double layer capability of the double layer recordable DVD drive, the blank DVDs you purchase must state Double Layer, Dual Layer, or DL. Using other types of blank media will result in less capacity.

Inserting a CD or DVD


Activity indicator (location varies)
Manual eject hole (location varies)
Eject button

Important Some music CDs have copy protection software. You may not be able to play these CDs on your computer.

To insert a CD or DVD:

1. Press the eject button on the CD or DVD drive.
2. Place the disc in the tray with the label facing up.

Important When you place a single-sided disc in the tray, make sure that the label side is facing up. If the disc has two playable sides, place the disc so the name of the side you want to play is facing up.

3. Press the eject button to close the tray.

Playing a CD

Use the music program or Windows Media Player on your computer to:

- Play music CDs
- Create MP3 music files from your music CDs
- Edit music track information
- Use your music files to build a music library
- Listen to Internet Radio

Playing a DVD

A Digital Versatile Disc (DVD) is similar to a standard CD but has greater data capacity. Because of this increased capacity, full-length movies, several albums of music, or several gigabytes of data can fit on a single disc. You can play DVDs with the DVD program or Windows Media Player on your computer.

Creating CDs or DVDs

You can use the CD or DVD burning program on your computer to copy tracks from a music CD to your hard drive, copy or create data CDs and DVDs, create music CDs, create video DVDs, and more.

Chapter 5

Networking Your Computer

- Introducing networking
- Creating an Ethernet network
- Testing your network
- Troubleshooting your Ethernet network

Introduction to Networking

An Ethernet network consists of two or more computers connected together through an Ethernet cable. This connection type is commonly used in offices around the world and can be used to build computer networks in the home.

Ethernet, Fast Ethernet, or Gigabit Ethernet

Ethernet is available at three different speeds. Standard Ethernet runs at 10 Mbps, Fast Ethernet runs at 100 Mbps, and Gigabit Ethernet runs at 1000 Mbps. Most home networks are built using Standard or Fast Ethernet components. Business networks are typically built using Fast or Gigabit Ethernet components.

To create an Ethernet network, you or your electrician must install special Ethernet cables in your home or office.

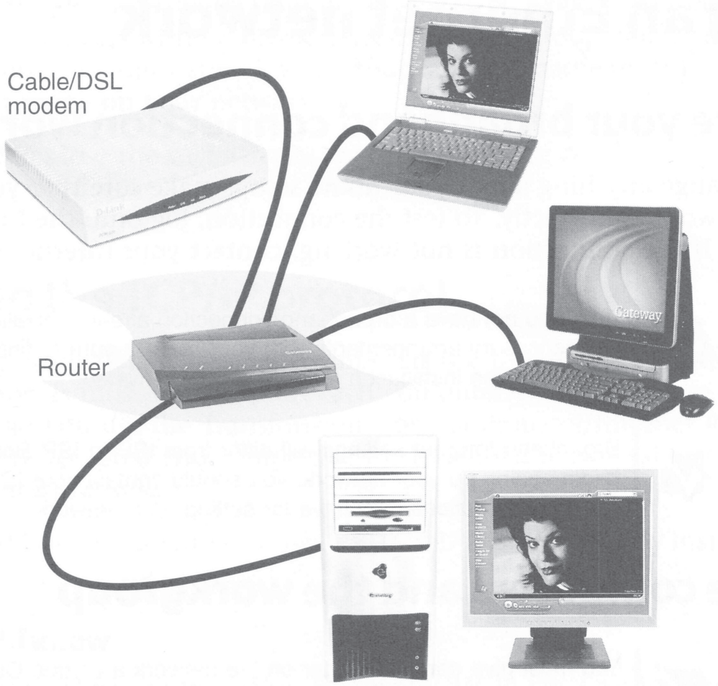
Important ✓ Check local code requirements before installing Ethernet cable or other wiring in your home or office. Your municipality may require you to obtain a permit and hire a licensed installer.

Using a router

The most common way to set up an Ethernet network is Dynamic Host Control Protocol (DHCP) using a router. A DHCP network configuration uses a router to automatically assign IP addresses to each computer or network device.

Example router-based Ethernet network

The following is an example of an Ethernet network. The network is made up of a router, a cable or DSL modem, your computers, and cables connecting each of these components. The router is the central control point for the network. Attached to the router are all of your computers or Ethernet-ready devices. Also connected to the router is a cable or DSL modem that provides access to the Internet.



Equipment you need for a router-based Ethernet network

For an Ethernet network you need:

- Two or more computers with Ethernet jacks
- One router
- One broadband Internet connection (optional)
- Ethernet cables connecting all of the network equipment

Important For best results, all Ethernet components should be either standard Ethernet (10 Mbps), Fast Ethernet (100 Mbps or 10/100), or Gigabit Ethernet (1000 Mbps or 10/100/1000). A mixture of components rated at different speeds will result in your network running at the speed of the slowest rated component.

Tips & Tricks When buying your router, be sure the model includes everything your network needs, including:

- Internet security features - such as a firewall to protect your network from unwanted intruders
- 4-port switch - to eliminate the need for additional network hardware
- DHCP server/dynamic IP address assignment - to automatically configure network and IP addresses

Creating an Ethernet network

Making sure your broadband connection works

Before you change anything about your home setup, make sure that your broadband connection is working correctly. To test the connection, log onto the Internet using your current setup. If the connection is not working, contact your Internet service provider.

Important ✓ If you do not have a broadband connection already installed, make the necessary arrangements with your ISP. Be sure to find out how soon after the installation the line will be activated.

Important ✓ Broadband Internet settings will differ from ISP to ISP. Before you begin setting up your network, you should contact your ISP for any specific instructions they have for setting up a network.

Naming the computers and the workgroup

Important ✓ You must give each computer on the network a unique Computer Name and the same Workgroup Name.

▶ To identify this computer on the network:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**. The *Performance and Maintenance* window opens.
2. Click/Double-click **System**. The *System Properties* dialog box opens.
3. Click **Computer Name**.
4. Click **Change**. The *Computer Name Changes* dialog box opens.
5. Type a unique computer name in the **Computer name** box. This name identifies the computer to other users on the network. Use a computer name of up to 15 characters with no blank spaces. Each computer name must be unique on your network. All-numeric computer names are not allowed. Names must contain some letters.

6 Type a name for your workgroup in the **Workgroup** box. Use a workgroup name of up to 15 characters with no blank spaces. The workgroup name must be the same for all computers in your network workgroup, and the name must be different than any computer name on your network.

7 Click **OK** to close the *Computer Name Changes* dialog box.

□

Configuring the TCP/IP protocol

A networking protocol is a language computers use to talk to each other. One of several available protocols must be set up on each computer you plan to use on your network. We recommend you use the Transmission Control Protocol/Internet Protocol (TCP/IP), which is widely accepted and compatible for local area networks (LANs), as well as for Internet communications.

When networking is set up in Windows XP, TCP/IP is automatically installed as the default protocol.

Terms you should know

DHCP - Dynamic Host Configuration Protocol (DHCP) lets a router temporarily assign an IP address to a computer on the network.

IP Address - Internet Protocol (IP) address is a number that uniquely identifies a computer on the network.

Subnet Mask - Subnet mask is a number that identifies what subnetwork the computer is located on. This number will be the same on all computers on a home network.

Using a DHCP server

In order to use the TCP/IP protocol on each computer with a router, you must set the protocol to "Obtain an IP address from a DHCP server."

▶ To use a DHCP server

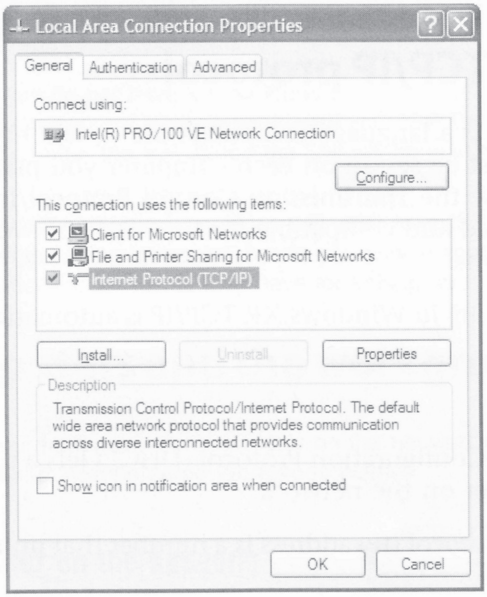
1 Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Network and Internet Connections**. The *Network and Internet Connections* window opens.

2 Click/Double-click **Network Connections**. The *Network Connections* window opens.

3 Right-click **Local Area Connection**, then click **Properties**. The *Local Area Connection Properties* dialog box opens.

- OR -

If you do not have a LAN connection setup, click **Create a new connection** and follow the instructions in the New Connection Wizard.


Local Area Connection Properties
?
X
General
Authentication
Advanced
Configure...
Install...
Uninstall
Properties
OK
Cancel

Connect using:
Intel(R) PRO/100 VE Network Connection

This connection uses the following items:
☑ Client for Microsoft Networks
☑ File and Printer Sharing for Microsoft Networks
☑ Internet Protocol (TCP/IP)

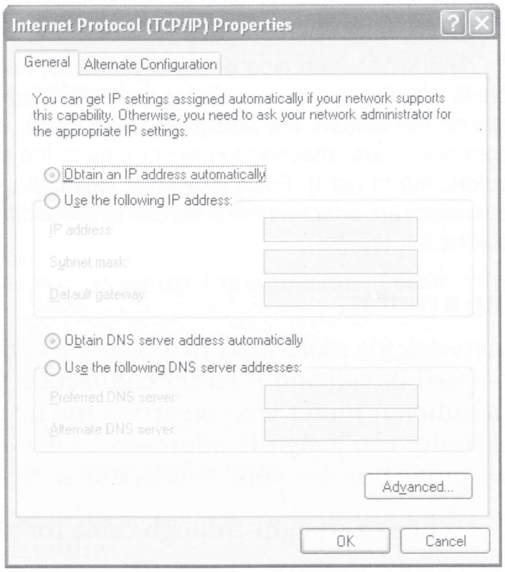
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

☐ Show icon in notification area when connected

4 Click to select the **Internet Protocol (TCP/IP)** check box in the **This connection uses the following items** list. If you do not see TCP/IP, drag the scroll bar to see more choices.

5 Click **Properties.** The *Internet Protocol (TCP/IP) Properties* dialog box opens.

6 Click the **General** tab.



You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

● Obtain an IP address automatically
○ Use the following IP address:
IP address:
Subnet mask:
Default gateway:

● Obtain DNS server address automatically
○ Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:

7 Click **Obtain an IP address automatically.**

8 Click **OK** to close the *Internet Protocol (TCP/IP) Properties* dialog box.

9 Click **OK** to close the *Local Area Connection Properties* dialog box.

10 Click **X** to close the *Network Connections* window.

11 Repeat this procedure for every computer on your network.

Setting up an Ethernet network

We recommend using category 5, unshielded, twisted-pair cable (approximately 1/4" in diameter with a thin outer-jacket, containing eight color-coded wires), and equipment compatible with this type of cable. This type of cable is equipped with RJ-45 connectors (like a large telephone jack connector, but with eight pins) on each end.

Important

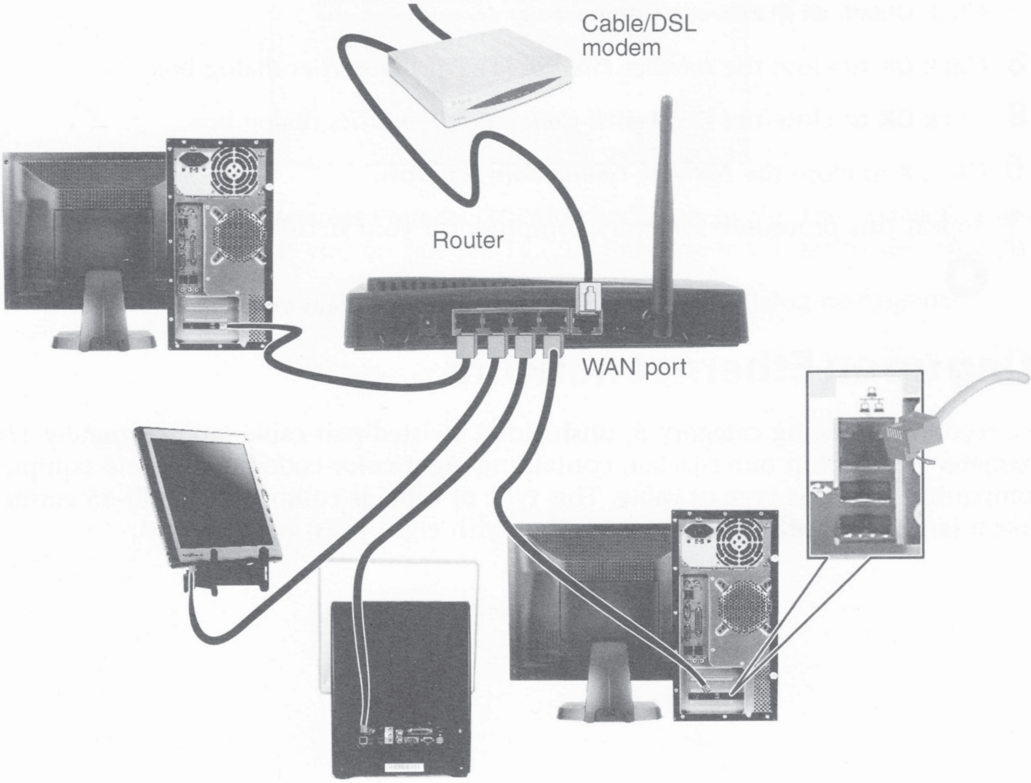
Category 5 cables are available in two different types; straight-through cables, used to connect computers to a router, and crossover cables, used to connect two computers.

To determine which type of cable you have, hold both ends of the cable with the connectors facing away from you and with the spring clip on the bottom. For straight-through cable, the wires on both connectors are attached to copper pins in the same order (same colors, left to right). For a crossover cable, the wires on each connector are attached to the copper pins in a different order (different colors, left to right).

Setting up a network using a router

If you are setting up a network for more than two computers and you will be connecting your network to a high-speed Broadband Internet connection (cable or DSL modem), we recommend the use of a router. A router lets you access the Internet connection from any network computer. The router can assign IP addresses to the computers on the network and can provide firewall protection for your network as well.

In addition to a router, you need a straight-through cable for each computer you want to connect to the network.



Configuring your router

After you have named your computers and set up TCP/IP on them, you can configure your router using your Web browser. Check your router documentation for information about installing it and setting network security.

Testing your network

Now that your home network is set up, log onto one of your computers and access a favorite Internet Web site.

If you are unable to connect to the Internet:

- Run the New Connection Wizard
- Check all physical cable connections
- Compare the status lights on the front of the router with the patterns described in the router literature
- Temporarily turn off any firewall software on your desktop computer
- Turn off all of the devices, then power them back on
- Refer to your router's troubleshooting information
- Contact your Internet service provider

Using your computer on your network

With a network, you can share your Internet connection, drives, and printers. For information about using your computer on a network, see "Using your computer on a network" in *Using Your Computer* which has been included on your hard drive. To access this guide, click **Start**, **All Programs**, then click **eMachines Documentation**.

Troubleshooting Your Ethernet network

You cannot see the other computers on your network

- Make sure that your Ethernet cable is plugged into the Ethernet jack on your computer. Make sure that the other end is plugged into a router.
- Make sure that all computers are plugged into a powered electrical outlet and turned on.
- Make sure that the router is plugged into a powered electrical outlet and turned on. Most routers have lights that indicate they are working. For more information, see the documentation that came with your router.
- Make sure that all computers on your network have the same workgroup name.
- Make sure that all computers are using the same Subnet Mask.
- If you assigned IP addresses to the computers, make sure that all computers have different IP addresses. For home networks, IP addresses should be 192.168.N.N where N is a number you assign between 0 and 254. The first N should be the same for all computers on your network and the second N should be different for all computers on your network.

The computer does not recognize an add-in Ethernet card

- Shut down and restart your computer.
- Make sure that you have installed the required software. For more information, see the documentation that came with your Ethernet card.
- Reseat the card. For more information, about opening your computer case, see "Opening the case" on page 52. For more information about your Ethernet card, see the documentation that came with your Ethernet card.

Your Ethernet network is running slower than you expect

- If your Ethernet network is running slower than you expect, check the speed of each Ethernet component. For best results, all Ethernet components should be standard Ethernet (10 Mbps), Fast Ethernet (100 Mbps or 10/100 Mbps), or Gigabit Ethernet (1000 Mbps or 10/100/1000 Mbps). A mixture of Ethernet, Fast Ethernet, and Gigabit Ethernet components will result in your network running at the slowest component speed.

Chapter 6

Maintaining Your Computer

- Caring for your computer
- Updating Windows
- Protecting your computer from viruses
- Cleaning your computer
- Restoring your system
- Opening the computer case
- Adding memory and replacing the battery

Caring for your computer

To extend the life of your computer:

- When transporting your computer, we recommend that you put it in the original packaging materials.
- Keep your computer away from magnetic fields. Magnetic fields can erase data on hard drives.
- Avoid subjecting your computer to extreme temperature changes.
- Keep all liquids away from your computer. When spilled onto computer components, almost any liquid can result in extremely expensive repairs that are not covered under your warranty.
- Avoid dusty or dirty work environments. Dust and dirt can clog the internal mechanisms.
- Do not block the ventilation fan.
- When storing your computer for an extended period of time, unplug AC power.

Updating Windows

Windows Update is the online extension of Windows that helps you to keep your computer up-to-date. Use Windows Update to choose updates for your computer's operating system, software, and hardware. New content is added to the site regularly, so you can always get the most recent updates and fixes to protect your computer and keep it running smoothly. Windows Update scans your computer and provides you with a tailored selection of updates that apply only to the software and hardware on your computer.

To run Windows Update:

1. Connect to the Internet.
2. Click **Start**, **All Programs**, then click **Windows Update**.
3. Click **Scan for Available Updates**.

Help and Support

For more information about Windows Update, click **Start**, then click **Help and Support**. Type the keyword **Windows Update** in the HelpSpot **Search** box Search ▭ ➡ , then click the arrow.

Protecting your computer from viruses

A *virus* is a program that attaches itself to a file on a computer, then spreads from one computer to another. Viruses can damage data or cause your computer to malfunction. Some viruses go undetected for a period of time because they are activated on a certain date.

Help and Support ?

For more information about protecting your computer against viruses, click **Start**, then click **Help and Support**. Type the keyword **viruses** in the **Search** box Search, then click the arrow.

Cleaning your computer

Keeping your computer clean and the vents free from dust helps keep your computer performing at its best. You may want to gather these items and put together a computer cleaning kit:

- A soft, lint-free cloth
- An aerosol can of air that has a narrow, straw-like extension
- Cotton swabs
- A CD or DVD drive cleaning kit

Cleaning the exterior

Warning !

When you shut down your computer, the power turns off, but some electrical current still flows through your computer. To avoid possible injury from electrical shock, unplug the power cord and modem cable from the wall outlets.

Always turn off your computer and other peripherals before cleaning any components.

Use a damp, lint-free cloth to clean your computer and other parts of your system. Do not use abrasive or solvent cleaners because they can damage the finish on components.

Your computer is cooled by air circulated through the vents on the case, so keep the vents free of dust. With your computer turned off and unplugged, brush the dust away from the vents with a damp cloth. Be careful not to drip any water into the vents. Do not attempt to clean dust from the inside of your computer.

Cleaning the keyboard

You should clean the keyboard occasionally by using an aerosol can of air with a narrow, straw-like extension to remove dust and lint trapped under the keys.

If you spill liquid on the keyboard, turn off your computer and turn the keyboard upside down. Let the liquid drain, then let the keyboard dry before trying to use it again. If the keyboard does not work after it dries, you may need to replace it.

Cleaning the computer display

To clean a computer LCD screen or flat panel display, use a soft cloth and water to clean the LCD screen. Squirt a little water on the cloth (never directly on the screen), and wipe the screen with the cloth.

Caution ⚠ A flat panel display or computer LCD screen is made of specially coated glass and can be scratched or damaged by abrasive or ammonia-based glass cleaners.

To clean a CRT monitor, use a soft cloth and glass cleaner to clean the monitor screen. Squirt a little cleaner on the cloth (never directly on the screen), and wipe the screen with the cloth.

Cleaning the mouse

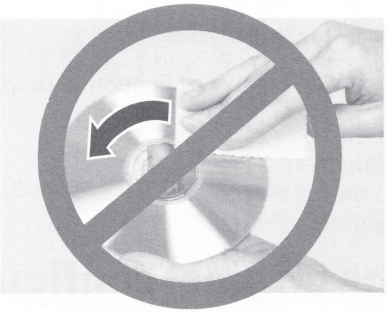
If the mouse pointer begins moving erratically across the computer screen or becomes difficult to control precisely, cleaning the mouse will likely improve its accuracy.

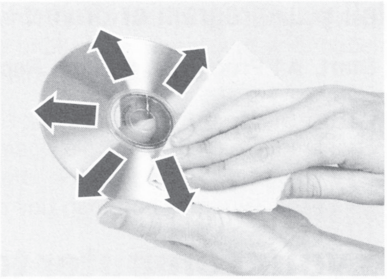
▶ To clean your mouse:

- Wipe the bottom of the mouse with a damp lint-free cloth

Cleaning CDs or DVDs

Wipe from the center to the edge, not around in a circle, using a product made especially for the purpose.





Restoring your system

Microsoft System Restore

If your computer is not working correctly after you install a program or change a setting in the Control Panel, you may need to use Microsoft System Restore to restore the computer to an earlier configuration.

To run Microsoft System Restore:

1. Click **Start**, **All Programs**, **Accessories**, **System Tools**, then click **System Restore**.
2. Follow the on-screen instructions.

Help and Support

For more information about System Restore, click **Start**, then click **Help and Support**. Type the keyword **System Restore** in the HelpSpot **Search** box Search ☐ ➔, then click the arrow.

Reinstalling programs and drivers

If a program or device on your computer is not working correctly, you may need to reinstall your program or driver.

To reinstall your program or driver:

1. Click **Start**, **All Programs**, **System Recovery**, then click **Application & Driver Recovery.**
2. Follow the on-screen instructions.

Restoring your computer to the original configuration

If Windows does not start or if the two previous procedures do not correct the problem, you may need to restore your computer to the original configuration.

To restore your computer to the original configuration:

1. Turn on your computer, then press **F11**.
2. Follow the on-screen instructions.

Preventing static electricity discharge

The components inside your computer are extremely sensitive to static electricity, also known as *electrostatic discharge* (ESD).

Warning To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer and unplug the power cord and modem and network cables before opening the case.

Caution ESD can permanently damage electrostatic discharge-sensitive components in your computer. Prevent ESD damage by following ESD guidelines every time you open the computer case.

Before opening the computer case, follow these guidelines:

- Turn off your computer.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your computer.

Warning To prevent risk of electric shock, do not insert any object into the vent holes of the power supply.

- Touch a bare metal surface on the back of the computer.
- Unplug the power cord and the modem and network cables.

Before working with computer components, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold expansion cards by their edges or their metal mounting brackets. Avoid touching the edge connectors and components on the cards. Never slide expansion cards or components over any surface.

Opening the case

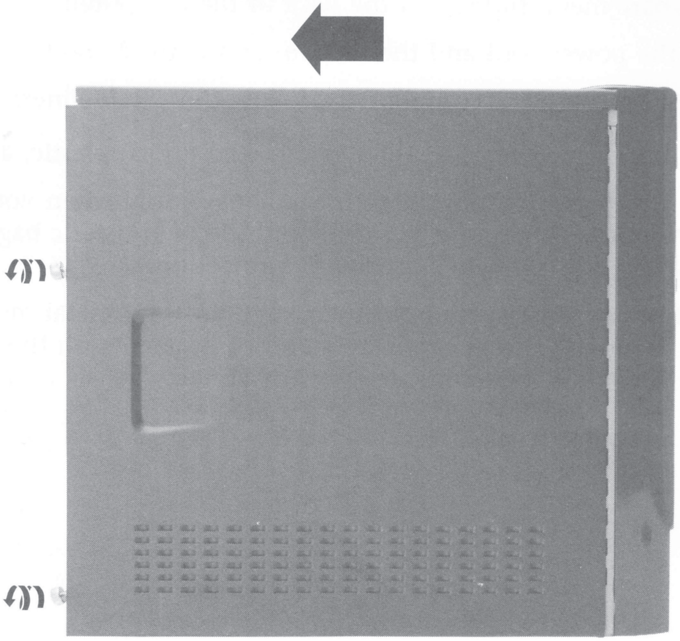
Your computer case provides easy access to internal components.

Warning To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer, then unplug the power cord and modem cable before opening the case.

Removing the side panel

To remove the side panel:

1. Follow the instructions in “First steps” on page 62.
2. Shut down your computer, then disconnect the power cord and modem, network, and all peripheral device cables.
3. Press the power button to drain any residual power from your computer.
4. Remove the two thumbscrews from the side panel cover, slide the side panel cover toward the back of the computer, then lift the panel away from the computer.



Removing the front bezel

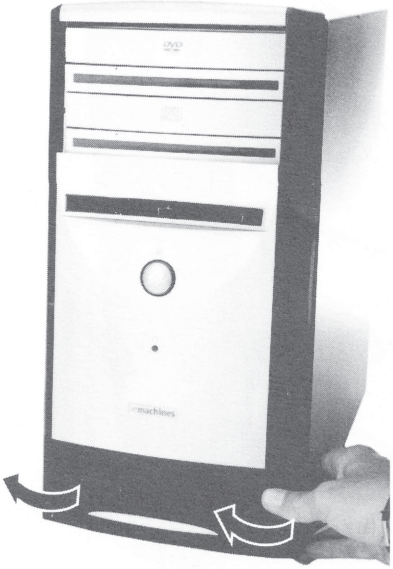
To remove the front bezel:

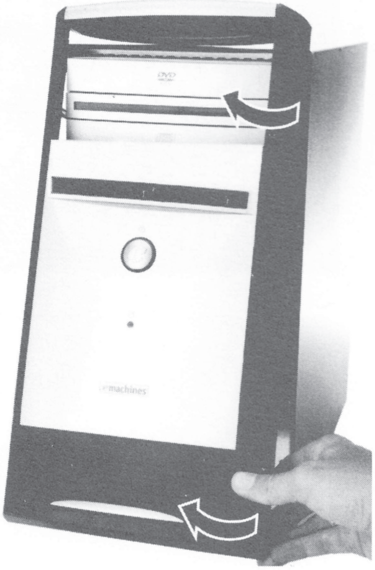
- Position the computer where you can grasp the top front edge of the bezel, then pull the bezel away from the case. Continue to loosen the bezel until you can remove it from the front of the case.

Caution There are cables connected to the back of the bezel. When the bezel is loose from the case:

- Carefully set the bezel to the side of the case with the cables attached.

  - OR -
- Disconnect the cables from the system board so you can remove the front bezel and cables away from the computer.





Closing the case

Replacing the side panel

To replace the side panel:

1 Make sure that all of the internal cables are arranged inside the case so they will not be pinched when you close the case.

2 Align the side panel, then slide the side panel toward the front of the computer to secure it into place.

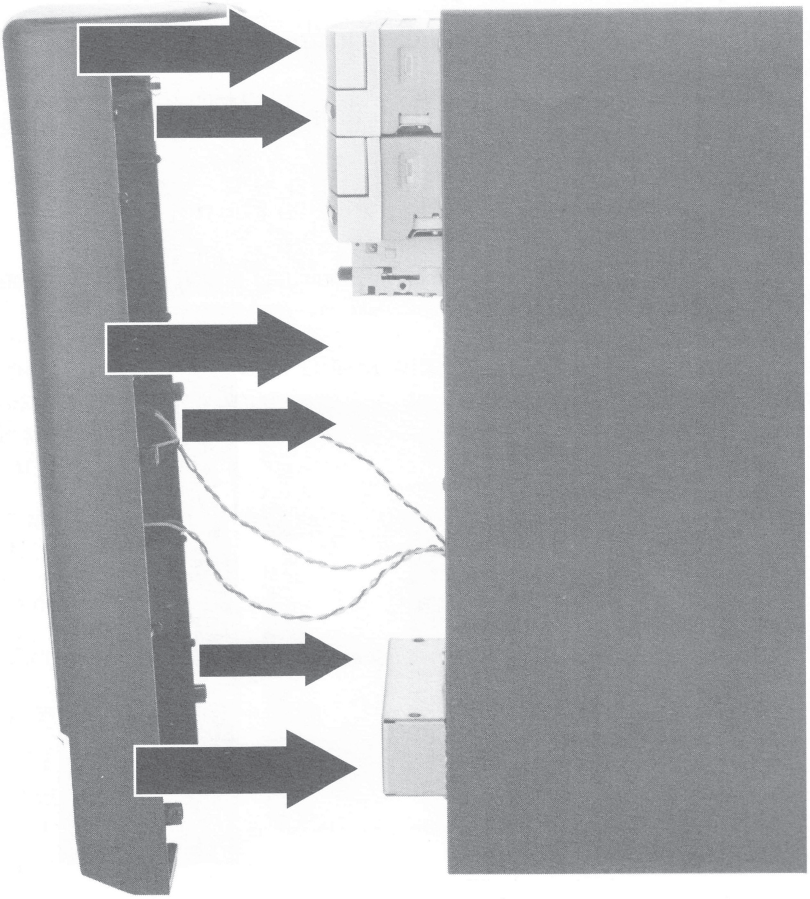
3 Replace the side panel thumbscrews.

4 Reconnect the cables and power cord.

Replacing the front bezel

▶ To replace the front bezel:

1 Align the latch pins with the computer latch holes.



2 Press the bezel firmly into place.

■

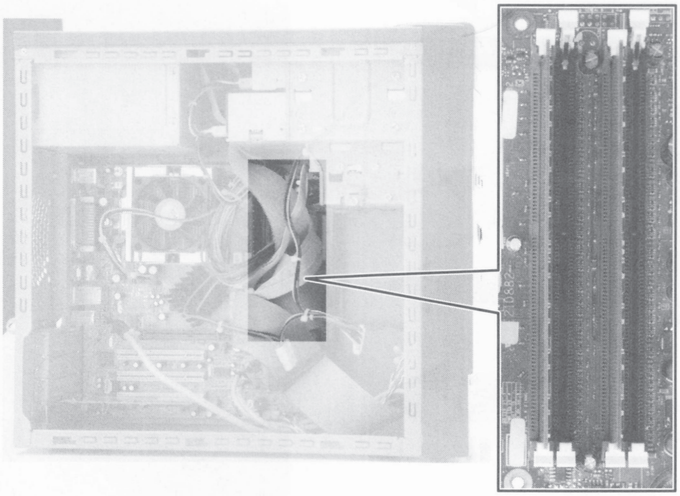
Installing memory

When you upgrade the computer memory, make sure that you install the correct type of memory module for your computer. Your computer uses DIMM memory.

To install or replace DIMM memory:

1. Remove the side panel by following the instructions in "Removing the side panel" on page 52.
2. For more stability, place your computer on its side. To avoid scratching the case, place it on a towel or other non-abrasive surface.
3. Find the memory module banks on your system board.

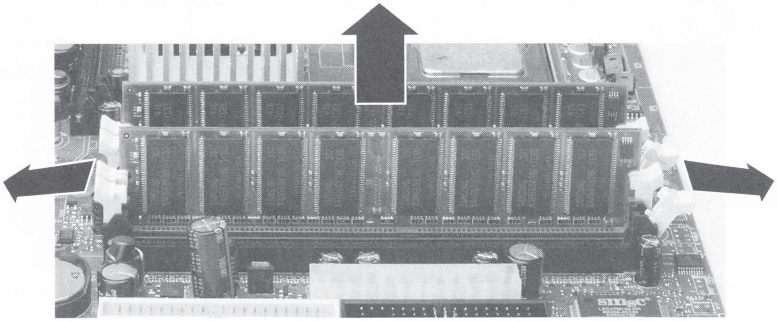
Important Your computer's memory location may vary from the illustration below.



4 If you are removing a DIMM from the memory module bank, gently pull the plastic tabs away from the sides of the memory module and remove it.

- OR -

If you are adding a DIMM to an empty memory module bank, gently pull the plastic tabs away from the sides of the memory module bank.



5 Align the notches on the new DIMM with the notches on the memory module bank and press the module firmly into the bank. The tabs on the sides of the memory module should secure the memory module automatically. When the module is secure, you hear a click.

6 Replace the side panel by following the instructions in “Replacing the side panel” on page 54.

7 Return your computer to its upright position.

8 Reconnect the cables and the power cord.

9 Turn on your computer. Windows starts and the Windows desktop appears.

10 Click **Start**, **Control Panel**, then click **Performance and Maintenance** (if in Category view). Click/Double-click **System**. The amount of memory in your computer is shown at the bottom of the *System Properties* dialog box in the General tab.

Replacing the system battery

If the computer clock does not keep time or the settings in the BIOS Setup utility are not saved when you turn off your computer, replace the system battery. Use a battery of the same size and voltage as the original battery that was in your computer.

Warning Danger of explosion if battery is incorrectly replaced.

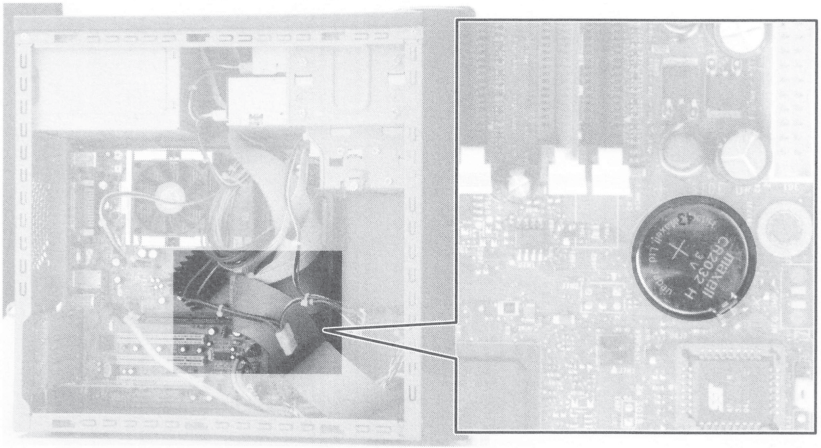
Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries following the manufacturer's instructions.

To replace the battery:

1. Restart your computer.
2. During the restart, press and hold the **F1** key. The main menu of the BIOS Setup utility opens.
3. Write down all the values in the menus and submenus, then exit from the utility.
4. Shut down your computer.
5. Remove the side panel by following the instructions in "Removing the side panel" on page 52.
6. For more stability, place your computer on its side. To avoid scratching the case, place it on a towel or other non-abrasive surface.
7. Locate the old battery on the system board and note its orientation. You will need to install the new battery the same way.

Important Your computer's battery location may vary from the illustration below.

8. Push the battery release tab. The battery pops out of the socket.



9. Make sure that the positive (+) side of the new battery is facing up, then press the battery into the socket until it snaps into place.
10. Replace the side panel by following the instructions in “Replacing the side panel” on page 54.
11. Reconnect all external cables and the power cord.
12. Turn on your computer.
13. Open the BIOS Setup utility.
14. In the BIOS Setup utility, restore any settings that you wrote down in Step 3.
15. Save all your settings and exit the BIOS Setup utility.

Chapter 7

Troubleshooting

- Troubleshooting typical hardware and software problems
- Getting telephone support
- Using automated troubleshooting systems
- Getting tutoring and training

Safety guidelines

While troubleshooting your computer, follow these safety guidelines:

- Never remove your computer case cover while your computer is turned on and while the modem cable and the power cord are connected.
- Make sure that you are correctly grounded before accessing internal components. For more information about preventing damage from static electricity, see "First steps" on page 62.

Warning

To avoid bodily injury, do not attempt to troubleshoot your computer problem if:

- Power cords or plugs are damaged
- Liquid has been spilled into your computer
- Your computer was dropped
- The case was damaged

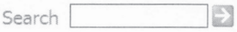
Instead, unplug your computer and contact a qualified computer technician.

First steps

If you have problems with your computer, try these things first:

- Make sure that the AC power adapter is connected to your computer and an AC outlet and that the AC outlet is supplying power.
- If you use a power strip or surge protector, make sure that it is turned on.
- If a peripheral device (such as a keyboard or mouse) does not work, make sure that all connections are secure.
- Make sure that your hard drive is not full.
- If an error message appears on the screen, write down the exact message. The message may help Customer Care in diagnosing and fixing the problem.
- If you added or removed peripheral devices, review the installation procedures you performed and make sure that you followed each instruction.
- If an error occurs in a program, see the program's printed documentation or the online help.

Help and Support

For more information about troubleshooting, click **Start**, then click **Help and Support**. Type the keyword **troubleshooting** in the **Search** box , then click the arrow.

Troubleshooting

Add-in cards

The computer does not recognize an add-in card

- Shut down and restart your computer.
- Make sure that you have installed the required software. For more information, see the documentation that came with your add-in card.

Audio

See "Sound" on page 75.

Battery

See "Power" on page 73.

CD or DVD drives

The computer does not recognize a disc or the CD or DVD drive

- Make sure that the disc label is facing up, then try again.
- Try a different disc. Occasionally discs are flawed or become scratched and cannot be read by the CD or DVD drive.
- Your computer may be experiencing some temporary memory problems. Shut down and restart your computer.
- Some music CDs have copy protection software. You may not be able to play these CDs on your computer.
- Clean the disc. For more information, see "Cleaning CDs or DVDs" on page 49.
- Make sure that the drive is configured correctly by following the instructions in the drive documentation.
- Reinstall the device driver.

Audio CD does not produce sound

- Make sure that the disc label is facing up, then try again.
- Some music CDs have copy protection software. You may not be able to play these CDs on your computer.

- Make sure that the volume controls are turned up. For more information, see "Adjusting the volume" on page 21.
- Make sure that the mute controls are turned off. For more information, see "Adjusting the volume" on page 21.
- Make sure that the speaker cables are connected correctly and securely.
- Shut down and restart your computer.
- Clean the disc. For more information, see "Cleaning CDs or DVDs" on page 49.
- Reinstall the audio device drivers.

A DVD movie will not play

- Make sure that you have a DVD drive. To identify your drive type, see "Identifying drive types" on page 32.
- Make sure that the disc label is facing up, then try again.
- Try a different disc. Occasionally discs are flawed or become scratched and cannot be read by the DVD drive.
- Shut down and restart your computer.
- Clean the disc. For more information, see "Cleaning CDs or DVDs" on page 49.
- Reinstall the device driver.
- Make sure that the DVD program has been installed on your computer.
- DVDs and DVD drives contain *regional codes* that help control DVD title exports and help reduce illegal disc distribution. To be able to play a DVD, the disc's regional code and your DVD drive's regional code must match.

  The regional code on your DVD drive is determined by your computer's delivery address. The regional code for the United States and Canada is 1. The regional code for Mexico is 4. Your DVD drive's regional code must match the regional code for the disc. The regional code for the disc is on the disc, disc documentation, or disc packaging.

  If the DVD movie does not play, the disc's regional code and your DVD drive's regional code may not match.

Computer

The computer will not start

- Make sure that the power cord is connected to an AC power source and your computer is turned on.

DVD drives

See "CD or DVD drives" on page 63.

File management

A file was accidentally deleted

If a file was deleted while holding down the SHIFT key, the file cannot be restored.

To restore deleted files:

1. Double-click the **Recycle Bin** icon.
2. Right-click the file you want to restore, then click **Restore**. The file is restored to the place where it was originally deleted from.

   If the Recycle Bin was emptied before you try to restore a file, the file cannot be restored.

Help and Support For more information about restoring deleted files, click **Start**, then click **Help and Support**. Type the keyword **System Restore** in the **Search** box Search ☐ ➔, then click the arrow.

Hard drive

You see an "Insufficient disk space" error message

- Delete unnecessary files from the hard drive using Disk Cleanup.
- Empty the Recycle Bin by right-clicking the **Recycle Bin** icon, then clicking **Empty Recycle Bin**.

Caution All deleted files will be lost when you empty the Recycle Bin.

- Save your files to another drive. If the hard drive is full, copy any files not regularly used to backup media, then delete them from the hard drive.

Help and Support For more information about file management, click **Start**, then click **Help and Support**. Type the keyword **file management** in the **Search** box Search ☐ ➔, then click the arrow.

You see a "Data error" message

This may be the result of a defective area on the hard drive. To fix hard drive problems, run the Error checking program.

The hard drive cannot be accessed, or you see a "General failure reading drive C" error message

- Press Ctrl+Alt+Del to restart your computer.
- If your computer has been subjected to static electricity or physical shock, you may need to reinstall the operating system.

Internet

See also "Modem (dial-up)" on page 68.

You cannot connect to the Internet

- If you are using a dial-up modem, make sure that the modem cable is plugged into the modem jack and not the Ethernet network jack. See "Desktop PC Back" on page 10 to make sure that the connections have been made correctly.

  - OR -

  If you are using a cable or DSL modem, make sure that the modem cable is plugged into the Ethernet network jack and not the modem jack. See "Desktop PC Back" on page 10 to make sure that the connections have been made correctly.
- Make sure that your account with your Internet service provider (ISP) is set up correctly. Contact your ISP technical support for help.
- Make sure that you do not have a problem with your modem. For more information, "Modem (dial-up)" on page 68.

Help and Support

For more information about troubleshooting Internet connections, click **Start**, then click **Help and Support**. Type the keyword **troubleshooting connections** in the **Search** box Search ☐ →, then click the arrow.

You see an "Unable to locate host" message and are unable to browse the Internet

This problem can occur when you have typed a URL (Web address) incorrectly, you have lost your Internet connection, or your ISP is having technical difficulties.

Double-check the URL or try a different URL. If the error message still appears, disconnect from the ISP connection and close your browser, then reconnect and open the browser. If you still get the error, your ISP may be having technical difficulties.

Connecting to a Web site takes too long

Many factors can affect Internet performance:

- The condition of the telephone lines in your residence or at your local telephone service
- The condition of the Internet computers to which you connect and the number of users accessing those computers
- The complexity of graphics and multimedia on Web pages
- Having multiple Web browsers open, performing multiple downloads, and having multiple programs open on your computer

People are sending you e-mail messages, but you have not received any mail

- Click the receive button in your e-mail program.
- Make sure that your account with your Internet service provider (ISP) is set up correctly. Contact your ISP for technical support.

Keyboard

The keyboard does not work

- Make sure that the keyboard cable is plugged in correctly. For more information, see the poster that came with your computer.
- Remove all extension cables and switch boxes.
- Clean the keyboard by using an aerosol can of air with a narrow, straw-like extension to remove dust and lint trapped under the keys.
- Try a keyboard that you know works to make sure that the keyboard port works.
- Reinstall the keyboard device driver.

A keyboard character keeps repeating or you see a "keyboard stuck" or "key failure" error message

- Make sure that nothing is resting on the keyboard.
- Make sure that a key is not stuck. Press each key to loosen a key that might be stuck, then restart your computer.

Liquid spilled in the keyboard

If you spilled liquid in the keyboard, turn off your computer and unplug the keyboard. Clean the keyboard and turn it upside down to drain it. Let the keyboard dry before using it again. If the keyboard does not work after it dries, you may need to replace it.

Memory

You see a "Memory error" message

- Use a third-party diagnostic program to help determine if a memory module is failing.

You see a "Not enough memory" error message

- Close all programs, then restart your computer.

Help and Support

For more information about troubleshooting memory errors, click **Start**, then click **Help and Support**. Type the keyword **memory error** in the **Search** box Search, then click the arrow.

Memory card reader

Drive letters for the memory card slots do not appear in the My Computer window

- Reboot your computer.

Modem (dial-up)

See also "Internet" on page 66.

Your modem does not dial or does not connect

- Make sure that the modem cable is plugged into the modem jack and not the Ethernet network jack. See "Desktop PC Back" on page 10 to make sure that the connections have been made correctly.
- Make sure that your computer is connected to the telephone line and the telephone line has a dial tone.
- Make sure that the modem cable is less than 6 feet (1.8 meters) long.
- Remove any line splitters or surge protectors from your telephone line, then check for a dial tone by plugging a working telephone into the telephone wall jack.
- If you have additional telephone services such as call waiting, call messaging, or voice mail, make sure that all messages are cleared and call waiting is disabled before using the modem. Contact your telephone service to get the correct code to temporarily disable the service. Also make sure that the modem dialing properties are set correctly.

To check the dialing properties:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
2. Click/Double-click the **Phone and Modem Options** icon, then click the **Dialing Rules** tab.
3. Click the location from which you are dialing, then click **Edit**.
4. Make sure that all settings are correct.

Help and Support For more information about dialing properties, click **Start**, then click **Help and Support**. Type the keyword **dialing** in the **Search** box Search ☐ ➡, then click the arrow.

- Disconnect any answering machine, fax machine, or printer that is on the same line as the modem. Do not connect these devices to the same telephone line as the modem.
- Make sure that you are not using a digital, rollover, or PBX line. These lines do not work with your modem.
- Check for line noise (scratchy, crackling, or popping sounds). Line noise is a common problem that can cause the modem to connect at a slower rate, abort downloads, or even disconnect. The faster the modem, the less line noise it can tolerate and still work correctly.

  Listen to the line using your telephone. Dial a single number (such as 1). When the dial tone stops, listen for line noise. Wiggle the modem cable to see if that makes a difference. Make sure that the connectors are free from corrosion and all screws in the wall or telephone wall jack are secure.

  You can also call your telephone service and have the telephone line checked for noise or low line levels.
- Try another telephone line (either a different telephone number in your house or a telephone line at a different location). If you can connect on this line, call your telephone service.
- Try connecting with the modem at a lower connection speed. If reducing the connect speed lets you connect, call your telephone service. The telephone line may be too noisy.

You cannot connect to the Internet

- The ISP may be having technical difficulties. Contact your ISP for technical support.
- See if the modem works with a different communications program. The problem may be with just one program.
- Review the troubleshooting information under "Internet" on page 66

Your 56K modem does not connect at 56K

Current FCC regulations restrict actual data transfer rates over public telephone lines to 53K. Other factors, such as line noise, telephone service provider equipment, or ISP limitations, may lower the speed even further.

If your computer has a v.90 modem, the speed at which you can upload (send) data is limited to 33.6K. If your computer has a v.92 modem, the speed at which you can upload data is limited to 48K. Your ISP may not support 48K uploads.

Your fax communications program only sends and receives faxes at 14,400 bps when you have a 56K modem

Current fax technology only supports a maximum send and receive rate of 14,400 bps.

The modem is not recognized by your computer

- Make sure that the line connected to the modem is working and plugged into the appropriate port on your computer. See "Desktop PC Back" on page 10 to make sure that the connections have been made correctly.
- If the modem shares the telephone line with another device, make sure that the telephone line is not in use (for example, someone is on the telephone, or another modem is in use).
- Use the modem cable that came with your computer. Some telephone cables do not meet required cable standards and may cause problems with the modem connection.
- Shut down and restart your computer.
- Run Windows modem diagnostics.

To run modem diagnostics:

1. Close all open programs.
2. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
3. Click/Double-click the **Phone and Modem Options** icon, then click the **Modems** tab.
4. Click your modem, then click **Properties**. The *Modem Properties* dialog box opens.

5 Click the **Diagnostic** tab, then click **Query Modem**. If information about the modem appears, the modem passed diagnostics. If no modem information is available, a white screen appears with no data, or if you get an error such as *port already open* or *the modem has failed to respond*, the modem did not pass diagnostics.

Help and Support

For more information about modem troubleshooting, click **Start**, then click **Help and Support**. Type the keyword **modem troubleshooting** in the **Search** box Search, then click the arrow.

The modem is noisy when it dials and connects

When your modem tries to connect to another modem, it begins *handshaking*. Handshaking is a digital "getting acquainted" conversation between the two modems that establishes connection speeds and communication protocols. You may hear unusual handshaking sounds when the modems first connect. If the handshaking sounds are too loud, you can turn down the modem volume.

To turn down the modem volume:

1 Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.

2 Click/Double-click the **Phone and Modem Options** icon, then click the **Modems** tab.

3 Click the modem you want to adjust, then click **Properties**.

4 Click the **Modem** tab, then adjust the **Speaker volume** control.

5 Click **OK** twice to close the *Phone and Modem Options* dialog box.

Monitor

The screen resolution is not correct

Change the screen resolution from the *Display Properties* dialog box.

Help and Support

For more information about changing the screen resolution, click **Start**, then click **Help and Support**. Type the keyword **screen resolution** in the **Search** box Search, then click the arrow.

The computer is running but there is no picture

- Make sure that the monitor is plugged in and turned on. If the monitor is turned on, the power LED should be lit.
- Adjust the brightness and contrast controls to the center position.
- Make sure that the monitor cable is connected to the video port on the back of your computer.
- Check the cable for bent or damaged pins.
- Reinstall the device driver.
- Connect a monitor that you know works to your computer.

The color is not uniform

Make sure that:

- The monitor warms up for at least 30 minutes before making a final judgment about color uniformity.
- Non-shielded speakers are not placed too close to the monitor.
- The monitor is not positioned too close to another monitor, electric fan, fluorescent light, metal shelf, or laser printer.
- You demagnetize the screen using the monitor's degauss feature. For more information on degauss, see your monitor's documentation.

Why is there a horizontal line or wire visible across the monitor screen?

Your monitor may use a thin *damper* wire, located approximately 1/3 of the way down from the upper screen edge and 1/3 of the way up from the lower screen edge, to stabilize the internal aperture grille. These wires are most obvious when the monitor displays a white background. The aperture grille allows more light to pass through the screen for brighter colors and greater luminescence. The damper wire is a critical part of the overall monitor design and does not negatively affect the monitor's function.

The text on the display is dim or difficult to read

- Adjust the brightness and contrast controls.
- Use the monitor degauss feature (see your monitor documentation) or turn off your computer and monitor, leave them off for at least a half hour, then restart your computer.
- Change the display settings.
- Move the monitor away from sources of electrical interference, such as televisions, unshielded speakers, microwaves, fluorescent lights, and metal beams or shelves.

For more information about display types, see your monitor and video card documentation.

Mouse

The mouse does not work

- Make sure that the mouse cable is plugged in correctly.
- Shut down and restart your computer.
- Remove all extension cables and switch boxes.
- Try a mouse you know is working to make sure that the mouse port works.

The mouse works erratically

If the mouse pointer begins moving erratically across the computer display or becomes difficult to control precisely, cleaning the mouse will likely improve its accuracy.

Clean the mouse by wiping the bottom with a clean, damp cloth. Make sure that the optical sensor is clean and free of debris.

Networks

You cannot connect to your company network

Every network is unique. Contact your company computer department or network administrator for help.

Help and Support

For more information about network troubleshooting, click **Start**, then click **Help and Support**. Type the keyword **network troubleshooting** in the **Search** box Search , then click the arrow.

Passwords

Your computer does not accept your password

Make sure that CAPS LOCK is turned off, then retype the password.

Power

Your computer will not turn on

- Make sure that your power cord is connected correctly to your computer.

- If your computer is plugged into a surge protector, make sure that the surge protector is connected securely to an electrical outlet, turned on, and working correctly. To test the outlet, plug a working device, such as a lamp, into the outlet and turn it on.
- Make sure that the power cord is free from cuts or damage. Replace any damaged cables.

Printer

The printer will not turn on

- Make sure that the printer is online. Many printers have an online/offline button that you may need to press.
- Make sure that the power cable is plugged into an AC power source.

The printer is on but will not print

- Check the cable between the printer and your computer. Make sure that it is connected to the correct port.
- Make sure that the printer is online. Many printers have an online/offline button that you may need to press so the printer can start printing. Press the button to put the printer online.
- Check the cable for bent or broken pins.
- If the printer you want to print to is not the default printer, make sure that you have selected it in the printer setup.

▶ To set a default printer:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
2. Click/Double-click the **Printers and Faxes** icon. The *Printers and Faxes* window opens.
3. Right-click the name of the printer you want to be the default printer, then click **Set as Default Printer**.

■

- Reinstall the printer driver. See the guide that came with your printer for instructions on installing the printer driver.

You see a "Printer queue is full" error message

- Make sure that the printer is not set to work offline.

To make sure that the printer is not set to work offline:

1. Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
2. Click/Double-click the **Printers and Faxes** icon. The *Printers and Faxes* window opens.
3. Right-click the name of the printer you want to use. If the menu shows a check mark next to **Use Printer Offline**, click **Use Printer Offline** to clear the check mark.

Help and Support

For more information about printer troubleshooting, click **Start**, then click **Help and Support**. Type the keyword **printer troubleshooter** in the **Search** box Search ☐, then click the arrow.

- Wait until files have been printed before sending additional files to the printer.
- If you print large files or many files at one time, you may want to add additional memory to the printer. See the printer documentation for instructions for adding additional memory.

You see a "Printer is out of paper" error message

After adding paper, make sure that the printer is online. Most printers have an online/offline button that you need to press after adding paper.

Sound

You are not getting sound from the speakers

- Make sure that the speakers are turned on.
- Make sure that the volume controls are turned up. For more information, see "Adjusting the volume" on page 21.
- Make sure that mute controls are turned off. For more information, see "Adjusting the volume" on page 21.
- If you are using external speakers, see the speaker setup poster to check your speaker connections.

Help and Support

For more information about sound troubleshooting, click **Start**, then click **Help and Support**. Type the keyword **sound troubleshooter** in the **Search** box Search ☐, then click the arrow.

Telephone support

Before calling eMachines Customer Care

If you have a technical problem with your computer, follow these recommendations before contacting Customer Care:

- Make sure that your computer is connected correctly to a grounded AC outlet that is supplying power. If you use a surge protector, make sure that it is turned on.
- If a peripheral device, such as a keyboard or mouse, does not appear to work, make sure that all cables are plugged in securely.
- If you have recently installed hardware or software, make sure that you have installed it according to the instructions provided with it. If you did not purchase the hardware or software from eMachines, see the manufacturer's documentation and technical support resources.
- If you have "how to" questions about using a program, see:
  - Online Help
  - Printed documentation
  - The Microsoft Windows documentation
  - The software publisher's Web site
- See the troubleshooting section of this chapter.

Warning To avoid bodily injury, do not attempt to troubleshoot your computer problem if:

- Power cords or plugs are damaged
- Liquid has been spilled into your computer
- Your computer was dropped
- The case was damaged

Instead, unplug your computer and contact a qualified computer technician.

- Have your customer ID, serial number, and order number available, along with a detailed description of your problem, including the exact text of any error messages, and the steps you have taken.
- Make sure that your computer is nearby at the time of your call. The technician may have you follow troubleshooting steps.

Telephone numbers

You can contact eMachines to get answers to your questions:

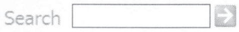
Resource	Service description	How to reach
eMachines Customer Care	Talk to a eMachines Customer Care representative about a non-tutorial technical support question. (See "Before calling eMachines Customer Care" on page 76 before calling.)	eMachines Customer Care telephone numbers vary by country or region. See the label on the front of your computer. For more information, see "Identifying your model" on page 13.

Self-help

If you have *how-to* questions about using your eMachines-supplied hardware or software, see the following resources:

- The printed or online documentation that came with your hardware or software.
- This user guide.
- The software publisher's Web site.

Help and Support

For more how-to information about Windows, click **Start**, then click **Help and Support**. Type the keyword **practice** in the **Search** box 

, then click the arrow.

Appendix A

Safety, Regulatory, and Legal Information

- Safety information
- Regulatory statements
- Notices

Important safety information

Your eMachines system is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.

Warning Always follow these instructions to help guard against personal injury and damage to your eMachines system.

Setting up your system

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable work surface.
- The product should be operated only from the type of power source indicated on the rating label.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area. The voltage selector switch is set at the factory to the correct voltage.
- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the computer ventilation openings.
- Some products are equipped with a three-wire power cord to make sure that the product is properly grounded when in use. The plug on this cord will fit only into a grounding-type outlet. This is a safety feature. If you are unable to insert the plug into an outlet, contact an electrician to install the appropriate outlet.
- If you use an extension cord with this system, make sure that the total ampere rating on the products plugged into the extension cord does not exceed the extension cord ampere rating.
- If your system is fitted with a TV Tuner, cable, or satellite receiver card, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and buildup of static charges.

Care during use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the system. The best way to avoid spills is to avoid eating and drinking near your system.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturer's instructions.
- When the computer is turned off, a small amount of electrical current still flows through the computer. To avoid electrical shock, always unplug all power cables and modem cables from the wall outlets before cleaning the system.
- Unplug the system from the wall outlet and refer servicing to qualified personnel if:
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not operate properly when the operating instructions are followed.
  - The system was dropped or the cabinet is damaged.
  - The system performance changes.

Replacement parts and accessories

Use only replacement parts and accessories recommended by eMachines.

Warning Do not use eMachines products in areas classified as hazardous locations. Such areas include patient care areas of medical and dental facilities, oxygen-laden environments, or industrial facilities.

Warning To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

Regulatory compliance statements

United States of America

Federal Communications Commission (FCC) Unintentional emitter per FCC Part 15

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a different circuit from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Compliance Accessories: The accessories associated with this equipment are: shielded video cable when an external monitor is connected. These accessories are required to be used in order to ensure compliance with FCC rules.

California Proposition 65 Warning

Warning This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or reproductive harm.

Telecommunications per Part 68 of the Code of Federal Regulations (CFR 47) (applicable to products fitted with USA modems)

Your modem complies with Part 68 of the Code of Federal Regulations (CFR 47) rules. On the computer or modem card is a label that contains the FCC registration number and Ringer Equivalence Number (REN) for this device. If requested, this information must be provided to the telephone company.

A telephone line cord with a modular plug is required for use with this device. The modem is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68-compliant. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices which may be connected to the telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

If this device causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. The telephone company may request that you disconnect the equipment until the problem is resolved.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

This equipment cannot be used on telephone company-provided coin service. Connection to party line service is subject to state tariffs. Contact the state public utility commission or public service commission for information.

When programming or making test calls to emergency numbers:

- Remain on the line and briefly explain to the dispatcher the reason for the call.
- Perform such activities in the off-peak hours such as early morning or late evenings.

The United States Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent, an identification of the business, other entity, or other individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual. Refer to your fax communication software documentation for details on how to comply with the fax-branding requirement.

Canada

Industry Canada (IC) Unintentional emitter per ICES-003

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

Telecommunications per Industry Canada CS-03 (for products fitted with an IC-compliant modem)

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operation, and safety requirements. The Department does not guarantee the equipment will operate to the users' satisfaction.

Before installing this equipment, users should make sure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should make sure, for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Warning To avoid electrical shock or equipment malfunction do not attempt to make electrical ground connections by yourself. Contact the appropriate inspection authority or an electrician, as appropriate.

The **Ringer Equivalence Number** (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Laser safety statement

All eMachines systems equipped with CD and DVD drives comply with the appropriate safety standards, including IEC 825. The laser devices in these components are classified as "Class 1 Laser Products" under a US Department of Health and Human Services (DHHS) Radiation Performance Standard. Should the unit ever need servicing, contact an authorized service location.

Warning Use of controls or adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure. To prevent exposure to laser beams, do not try to open the enclosure of a CD or DVD drive.

Television antenna connectors protection (for systems fitted with TV/cable TV tuner cards)

External television antenna grounding

If an outside antenna or cable system is to be connected to your computer, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and static charges.

Article 810 of the National Electrical Code, ANSI/NFPSA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

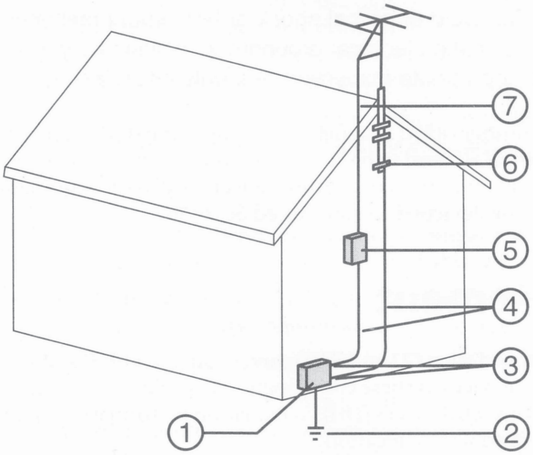
Lightning protection

For added protection of any eMachines product during a lightning storm or when it is left unattended or unused for long periods of time, unplug the product from the wall outlet and disconnect the antenna or cable system.

Power lines

Do not locate the antenna near overhead light or power circuits, or where it could fall into such power lines or circuits.

Warning When installing or realigning an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits. Contact with them could be fatal.



Antenna and satellite grounding

Reference	Grounding component
1	Electric service equipment
2	Power service grounding electrode system (NEC Art 250, Part H)
3	Ground clamps
4	Grounding conductors (NEC Section 810-21)
5	Antenna discharge unit (NEC Section 810-20)
6	Ground clamp
7	Antenna lead-in wire

Environmental information

The product you have purchased contains extracted natural resources that have been used in the manufacturing process. This product may contain substances known to be hazardous to the environment or to human health.

To prevent releases of harmful substances into the environment and to maximize the use of our natural resources, eMachines provides the following information on how you can responsibly recycle or reuse most of the materials in your "end of life" product.

Waste Electrical and Electronic Equipment (commonly known as WEEE) should never be disposed of in the municipal waste stream (residential garbage collection). The "Crossed-Out Waste Bin" label affixed to this product is your reminder to dispose of your "end of life" product properly.

Substances such as glass, plastics, and certain chemical compounds are highly recoverable, recyclable, and reusable. You can do your part for the environment by following these simple steps:

- When your electrical or electronic equipment is no longer useful to you, "take it back" to your local or regional waste collection administration for recycling.
- In some cases, your "end of life" product may be "traded in" for credit towards the purchase of new eMachines equipment. Call eMachines to see if this program is available in your area.
- If you need further assistance in recycling, reusing, or trading in your "end of life" product, you may contact us at the Customer Care number listed in your product's user guide and we will be glad to help you with your effort.

Finally, we suggest that you practice other environmentally friendly actions by understanding and using the energy-saving features of this product (where applicable), recycling the inner and outer packaging (including shipping containers) this product was delivered in, and by disposing of or recycling used batteries properly.

With your help, we can reduce the amount of natural resources needed to produce electrical and electronic equipment, minimize the use of landfills for the disposal of "end of life" products, and generally improve our quality of life by ensuring that potentially hazardous substances are not released into the environment and are disposed of properly.

Notices

Copyright © 2005 Gateway, Inc.
All Rights Reserved
7565 Irvine Center Drive
Irvine, CA 92618 USA

All Rights Reserved

This publication is protected by copyright and all rights are reserved. No part of it may be reproduced or transmitted by any means or in any form, without prior consent in writing from Gateway.

The information in this manual has been carefully checked and is believed to be accurate. However, changes are made periodically. These changes are incorporated in newer publication editions. Gateway may improve and/or change products described in this publication at any time. Due to continuing system improvements, Gateway is not responsible for inaccurate information which may appear in this manual. For the latest product updates, consult the eMachines Web site at www.eMachines.com. In no event will Gateway be liable for direct, indirect, special, exemplary, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages.

In the interest of continued product development, Gateway reserves the right to make improvements in this manual and the products it describes at any time, without notices or obligation.

Trademark Acknowledgments

Gateway and the Black-and-White Spot Design are trademarks or registered trademarks of Gateway, Inc. in the U.S. and other countries. SpotShop, Spotshop.com, and Your:)Ware are trademarks of Gateway, Inc. Intel, Intel Inside logo, and Pentium are registered trademarks and MMX is a trademark of Intel Corporation. Microsoft, MS, MS-DOS, and Windows are trademarks or registered trademarks of Microsoft Corporation. All other product names mentioned herein are used for identification purposes only, and may be the trademarks or registered trademarks of their respective companies.

The eMachines, Inc. stylized "e" and figure logo are trademarks of eMachines, Inc. in the United States and /or other countries.

Macrovision statement

If your computer has a DVD drive and an analog TV Out port, the following paragraph applies:

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Index

A

AC power connector 11
accessories
  safety precautions 81
activity indicators
  See indicators
application key 23
arrow keys 23
audio
  audio in jack 11
  headphone jack 11
  line in jack 11
  line out jack 11
  microphone jack 9, 11
  muting 21
audio CD
  See CD
audio in jack 11
audio playback buttons 23

B

battery
  replacing 58
bezel
  removing 53
  replacing 55
broadband connection 27, 38
  connecting 12
buttons
  See keys and buttons

C

cable modem 27, 36, 42
  connecting 12
Caps Lock indicator 23
cards
  inserting memory card 31
  installing memory card 31
  removing memory card 31
  slots 30
  troubleshooting add-in card 63
  troubleshooting memory card 68
  types of memory cards supported 30
case
  closing 54
  opening 52
CD
  cleaning 49
  inserting 33
  playing audio 33
  recording 34
  troubleshooting 63
CD drive
  identifying 32
  locating drive 9
  troubleshooting 63
  using 32
cellular phone
  memory cards 30
Certificate of Authenticity 14
cleaning
  case 47
  CD 49
  computer exterior 47
  computer screen 48
  DVD 49
  keyboard 48
  LCD panel 48
  mouse 48
  screen 48
clicking 25
closing
  computer case 54
  front bezel 55
  unresponsive program 20
computers
  naming 38
configuring
  router 43
  TCP/IP protocol 39
connecting
  modem 26
  PS/2 keyboard 11
  PS/2 mouse 11
  to Ethernet 12
  to Ethernet network 27

  to Internet 12, 27
  to network 12, 27
connections
  audio in 11
  digital camera 9, 11, 28
  digital video camera 9, 12, 28
  Ethernet 12, 27
  external audio 11
  external speakers 11
  Firewire 9, 12, 28
  headphone 11
  i.Link 9, 12, 28
  IEEE 1394 9, 12, 28
  keyboard 9, 11
  line in 11
  line out 11
  memory card reader 9
  microphone 9, 11
  modem 12, 26
  monitor 11
  mouse 9, 11
  network 12, 27
  parallel 11
  power 11
  power cord 11
  printer 9, 11
  PS/2 keyboard 11
  PS/2 mouse 11
  scanner 9, 11
  serial 11
  telephone 11
  USB 9, 11
  video camera 9, 12
  Zip drive 9, 11

D

default printer 74
DHCP 39
digital camera
  serial port 11
  USB port 9, 11
digital video camera
  IEEE 1394 port 9, 12
DIMM
  See memory
directional keys 23
display
  troubleshooting 65
documentation
  eMachines Web site 2
  help 3
  Help and Support 3
  online help 5
  Using Your Computer 4
double-clicking 25
dragging 25
drives
  CD 9, 32
  DVD 9, 32
  identifying drive types 32
  recordable CD 9, 32
  recordable DVD 9, 32
  troubleshooting 63, 65
  types 32
DSL modem 27, 36, 42
  connecting 12
DVD
  cleaning 49
  drive 32
  inserting 33
  playing 34
  recording 34
  troubleshooting 63, 65
DVD drive
  identifying 32
  locating drive 9
  troubleshooting 63, 65
  using 32
Dynamic Host Configuration Protocol 39

E

editing buttons 23
electrostatic discharge (ESD) 51
eMachines
  model number 13
  serial number 13
  Web address 2
  Web site 2
entering
  IP address 39
  subnet mask 39
ergonomics 16

Ethernet
  connecting 27
  equipment needed 37
  example 36
  jack 27
Ethernet jack 12
Ethernet network
  creating 38
external audio jack 11

F

Fast Ethernet 36
faxes
  troubleshooting 70
files
  opening 25
  troubleshooting 65
finding
  Help and Support topics 4
Firewire port 9, 12, 28
folders
  opening 25
front bezel
  removing 55
  replacing 55
function keys 23

G

Gigabit Ethernet 36

H

hard drive
  indicator 9
  troubleshooting 65
headphone jack 9, 11
help
  online 5
  using 3
Help and Support 3
  searching 4
  starting 3
Hibernate mode 9

I

i.Link port 9, 12, 28
IEEE 1394 port 9, 12, 28
indicators
  Caps Lock 23
  hard drive 9
  Num Lock 23
  numeric keypad 23
  power 9
  Scroll Lock 23
installing
  battery 58
  devices 28
  digital camera 28
  digital video camera 28
  front bezel 53
  memory 56
  peripheral devices 28
  printer 28
  scanner 28
  side panel 52
  system battery 58
Internet
  broadband connection 27
  buttons 23
  troubleshooting 66, 70
IP address
  entering 39

J

jacks
  See connections

K

keyboard
  buttons 22
  cleaning 48
  features 22
  PS/2 port 11
  troubleshooting 67
  USB port 9, 11
keys and buttons
  application 23
  arrow 23
  audio playback 23
  directional 23
  editing 23
  function 23
  Internet 23

- mouse 24
- navigation 23
- numeric 23
- power 9
- Windows 23

L

label
  - Microsoft Certificate of Authenticity 14
  - model number 13
  - serial number 9, 13
  - system identification 9

LCD panel
  - cleaning 48
  - troubleshooting 65, 71

lights
  - *See* indicators

line in jack 11

line out jack 11

M

maintenance
  - cleaning case 47
  - cleaning component exteriors 47
  - cleaning computer display 48
  - cleaning computer screen 48
  - cleaning keyboard 48
  - cleaning mouse 48
  - protecting from viruses 47

memory
  - adding 56
  - installing 56
  - replacing 56
  - troubleshooting 68

memory card reader
  - locating drive 9
  - memory card types supported 30
  - using 30

microphone jack 9, 11

Microsoft Certificate of Authenticity 14

model number 13

modem
  - cable 27, 36, 42
  - connecting 26
  - DSL 27, 36, 42
  - jack 12, 26
  - protecting from power surge 18
  - troubleshooting 68

monitor
  - cleaning 48
  - port 11
  - troubleshooting 71

mouse
  - buttons 24
  - cleaning 48
  - clicking 25
  - double-clicking 25
  - moving pointer 24, 25
  - moving screen objects 25
  - opening files, folders, and programs 25
  - pointer 24
  - PS/2 port 11
  - right-clicking 25
  - scroll wheel 24
  - selecting screen objects 25
  - troubleshooting 73
  - USB port 9, 11

moving
  - pointer 25
  - screen objects 25

MP3 player
  - memory cards 30

multimedia
  - adjusting volume 21
  - playing DVD 34
  - using DVD drive 32
  - using Windows Media Player 34

muting sound 21

N

name
  - computer 38
  - workgroup 38

naming
  - computers 38
  - workgroup 38

navigation keys 23

network
  - jack 27
  - testing 43
  - troubleshooting 44, 73

network jack 12

networking
    setting up 35
numeric keypad 23
    indicator 23

O

online help 3, 5
opening
    computer case 52
    files 25
    folders 25
    front bezel 53
    programs 25
    shortcut menu 25

P

Pad Lock indicator 23
parallel port 11
password 73
PDA
    memory cards 30
peripheral devices 28
playing
    audio CD 33
    DVD 34
Plug and Play devices
    IEEE 1394 support for 28
    USB support for 28
pointer 24
    moving 25
ports
    See connections
power
    button 9
    connector 11
    Hibernate mode 9
    indicator 9
    source problems 18
    Standby/Resume 9
    troubleshooting 73
    turning off computer 20
    turning on computer 19
power button 9
printer
    default 74
    installing 28
    parallel port 11
    troubleshooting 74
    USB port 9, 11
programs
    closing unresponsive 20
    opening 25
PS/2 port
    keyboard 11
    mouse 11

R

RAM
    See memory
rebooting computer 20
recordable drive 9
    creating CDs and DVDs 34
    identifying 32
    locating drive 9
    troubleshooting 63
recording
    CDs 34
    DVDs 34
resetting computer 20
restarting computer 20
restoring system 49
Resume mode 9
right-clicking 25
router
    configuring 43

S

safety
    avoiding repetitive strain 18
    caring for computer 46
    general precautions 80
    guidelines for troubleshooting 62
    posture 17
    reducing eye strain 16
    setting up computer 17
    static electricity 51
scanner
    installing 28
screen
    cleaning 48
    troubleshooting 71
screen objects

- getting information 25
- moving 25
- selecting 25

Scroll Lock indicator 23
scroll wheel 24
searching in Help and Support 4
serial number 9, 13
serial port 11
setting up
  safety precautions 80
shortcut menus
  accessing 25
shortcuts
  opening menu 25
shutting down computer 20
side panel
  removing 52
  replacing 52
sound
  adjusting 21
  controls 21
  muting 21
speaker jack 11
Standby mode 9
starting
  computer 9, 19
  programs 25
static electricity 51
subnet mask
  entering 39
surge protector 18
system battery
  replacing 58
system identification label 9, 13
system restore 49

T

TCP/IP protocol
  configuring 39
technical support
  Technical Support 77
  tips before contacting 76
telephone jack 11
telephone support 76
testing network 43
troubleshooting
  add-in cards 63
  cards 63
  CD drive 63
  cleaning CD 49
  cleaning DVD 49
  computer startup 64
  display 65
  DVD drive 63, 65
  DVD/CD drive 63
  Ethernet network 44
  faxes 70
  files 65
  general guidelines 62
  hard drive 65
  Internet connection 66, 70
  keyboard 67
  LCD panel 65, 71
  memory 68
  memory card reader 68
  modem 68
  monitor 71
  mouse 73
  network 73
  passwords 73
  power 73
  printer 74
  safety guidelines 62
  screen 65, 71
  screen area 71
  screen resolution 71
  technical support 76
  telephone support 76
  Web site connection speed 67
turning off computer 9, 20
turning on computer 9, 19
tutoring
  fee-based 77

U

uninterruptible power supply (UPS) 18
updating
  Windows 46
UPS 18
USB port 9, 11, 28

V

video
    playing 34
virus
    protecting against 47
voltage switch 11
volume
    adjusting 21
    adjusting modem 71
    controls 21
    muting 21
    troubleshooting 75

W

Web site
    eMachines 2
Windows
    Product Key Code 14
    restoring 49
Windows key 23
Windows Media Player 34
Windows Update 46
wired Ethernet
    troubleshooting 44
workgroup
    naming 38
working safely 16

Z

Zip drive
    port 9, 11

DOC- USG- ZST. G

MAN EU EM NG3 USR GDE R1 6/05

8510843